

RESOURCE ALLOCATION REVIEW



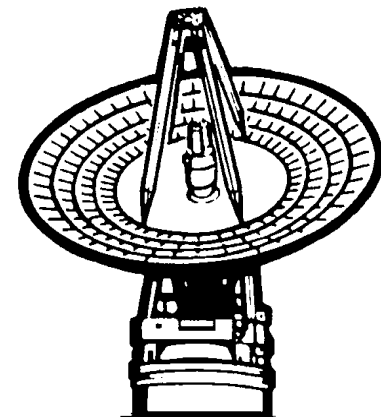
Interplanetary Network Customer Forum

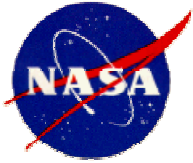
Version 1.0 Preliminary

2007 - 2009

Ernestine Hampton

February 14, 2006



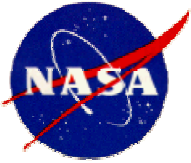


RESOURCE ALLOCATION REVIEW



Agenda

- ◆ **Loading Study**
- ◆ **Periods of Contention**
- ◆ **Events, Recommendations and Analyses**



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Loading Study

- ◆ **RARB Assumptions**
- ◆ **Project Changes and Changes in DSN Resource Support Request**
- ◆ **New Projects**
- ◆ **Deleted Projects**
- ◆ **DSN User / Mission Planning Set**
 - Ongoing / Approved Projects
 - Advanced / Planning Projects
- ◆ **Major DSN Downtimes by Date**
- ◆ **IND Resource Implementation Planning Matrix**

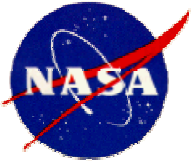


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RARB Assumptions

- ◆ **DSS-16 is scheduled for an indeterminate downtime beginning February 1, 2006. The previous designation of 26M meaning DSS-16,46,66 will now equate to DSS-46,66. All support previously assigned to DSS-16 has been reassigned to DSS-27 or DSS-24.**
- ◆ **The following Project/User requirements were not considered during the RARB analysis process and will be negotiated during the Mid-Range Scheduling Process:**
 - **ATOT – Development (4 - 8 hour supports); Mission (8 hour supports)**
 - **DSN - (Antenna and ZDD Calibrations)**
 - **GBRA - Guest Observations (4 – 8 hour supports); PRA-GAVT (all supports); Host Country 4 – 8 hour supports**
 - **GSSR - (GODR supports at DSS-14/15)**
 - **MER 1 & 2 - Uplink and Downlink MSPA passes**
 - **RFC - Clock Sync and CAT M&E S/X and X/Ka-band VLBI**
 - **Space Geodesy Programme**



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Project Changes Since August 2005 RARB

◆ ACE

- End of extended mission changed from 09/30/2010 to 10/01/2013

◆ DAWN

- Launch date changed from 06/17/2006 to (Not Earlier Than?) 12/17/2006

◆ GEOTAIL

- End of extended mission changed from 12/31/2006 to 10/01/2008

◆ Hayabusa (MUSES-C)

- DSN support suspended until further notice
- Mission replan in progress
- Earth return delayed until 2010?

◆ IMAGE

- Recovery efforts have ceased. Press release January 20, 2006 declared end of mission. Last validated contact on 12/18/2005

◆ INTEGRAL

- End of extended mission changed from 12/31/2008 to 12/16/2010



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Project Changes Since August 2005 RARB

◆ JUNO

- Launch date changed from 06/06/2009 to 07/08/2010
- ESB COV moved from 2011 to 2012
- 2012 - Reduced supports from 12 – 15 passes to 10 to 12 passes in weeks 37 - 38
- End of prime mission changed from 08/09/2015 to 09/18/2016

◆ Mars Odyssey 2001 Orbiter

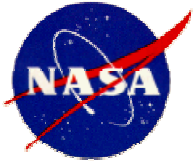
- 2008 – increased 70M relay support from 14 passes per week to 21 passes per week in weeks 47 – 52
- End of extended mission changed from 11/30/08 to 12/31/2010

◆ Mars Express Orbiter

- 2007 - Changed R/S Bi-Static Radar supports from DSS-43 only to 70M; reduce the number of supports from 62 per year to 24 and reduce the support duration from 4 hours to 3 hours
- 2008 - Reduced R/S Bi-Static Radar support duration from 4 hours to 3 hours; changed resource from DSS-43 to 70M; deleted the 2 passes every other week in weeks 01 – 19 and added 1 pass every three weeks throughout the year

◆ Mars Global Surveyor

- End of extended mission changed from 11/03/08 to 11/03/2009



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Project Changes Since August 2005 RARB

◆ Mars Reconnaissance Orbiter

- Launch date change from 08/10/2005 to 08/12/2005
- 2007- 2010 - Added 1 X/Ka band Delta DOR per month requiring 20 degree elevation viewperiods
- 2010- Changed MSL relay support to begin in week 22 vice week 27 on the 34M subnet

◆ Opportunity (Mars Exploration Rover –B) (MER 1)

- End of extended mission changed from 09/30/2007 to 09/30/ 2008

◆ Phoenix

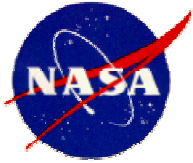
- 2008 – Moved EDL from 70M to 34M subnet and added 1 to 3 TCM 70M/34H array passes in weeks 21 and 22

◆ SELENE

- Launch date changed from 02/01/2007 to 07/16/2007
- End of prime mission changed from 02/21/2007 to 08/26/2007
- LOI 08/10/2007 - 08/26/2007

◆ SOHO

- End of extended mission changed from 12/31/2008 to 10/01/2011



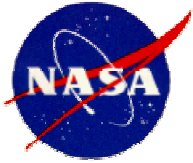
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Project Changes Since August 2005 RARB



- ◆ **Space Interferometry Mission**
 - Launch date changed from 03/11/2011 to 03/13/2011
 - End of prime mission changed from 08/30/2020 to 09/13/2021
- ◆ **Spirit (Mars Exploration Rover – A) (MER 2)**
 - End of extended mission changed from 09/30/2007 to 09/30/2008
- ◆ **Stereo Ahead and Stereo Behind**
 - Launch date changed from 04/11/2006 to 06/23/2006
 - End of Prime Mission changed from 07/13/2008 to 09/23/2008?
 - End of Extended Mission changed from 07/13/2011 to 09/23/2011?
- ◆ **Venus Express**
 - Launch date changed from 10/26/2005 to 10/12/2005
 - End of prime mission changed from 04/09/2006 to 09/24/2007
 - End of extended mission was changed from TBD to 01/22/2009
- ◆ **Wilkinson Microwave Anisotropy Probe**
 - End of extended mission changed from 09/30/09 to 09/30/10
- ◆ **Wind**
 - End of extended mission changed from 12/31/2008 to 09/30/2011

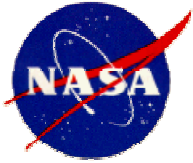


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New Projects Since August 2005 RARB

Project	Acronym	Launch or Start	EOPM	EOEM
NONE				

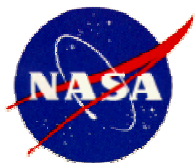


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JPL Removed/Unsupported Projects Since August 2005 RARB

Project	Acronym	Launch or Start	EOPM	EOEM
Gravity Probe B (Ground Support Quarterly Reference Star) (Non-Spacecraft Support)	GPB	06/01/96	08/31/05	---
Stardust (Successfully returned payload on 01/15/2006)	SDU	02/07/99	02/15/06	---
Deep Impact Flyby (In planned hibernation beginning in 2006)	DIF	01/12/05	08/05/05	TBD
Lunar Reconnaissance Orbiter (Moved to Emergency Mission Set)	LRO	11/15/08	TBD	TBD



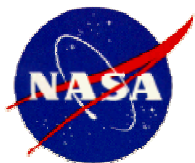
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DSN User / Mission Planning Set

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
DSN Antenna Calibration	DSN	--	--	--
DSS Maintenance	DSS	--	--	--
DSN ZDD Calibration	DSN	11/01/04	--	--
European and Global VLBI Systems	EGS	--	--	--
Ground Based Radio Astronomy	GBRA	--	--	--
Reference Frame Calibration (Cat M&E and Clock Sync)	DSN	--	--	--
Space Geodesy	SGP	--	--	--
Voyager 2	VGR2	08/20/77	10/15/89	09/30/06
Voyager 1	VGR1	09/05/77	12/31/80	09/30/06
Goldstone Solar System Radar	GSSR	04/01/85	--	--
Ulysses	ULYS	10/06/90	09/11/95	03/30/08
Geotail	GTL	07/24/92	07/24/95	10/01/08
Wind	WIND	11/01/94	11/01/97	10/01/11
SOHO	SOHO	12/02/95	05/02/98	10/01/11
Polar	POLR	02/22/96	08/23/97	12/31/06
Mars Global Surveyor	MGS	11/07/96	02/01/01	11/03/09
Advance Composition Explorer	ACE	08/25/97	02/01/01	10/01/13



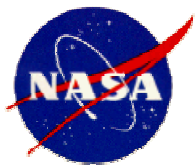
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DSN User / Mission Planning Set

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
Cassini	CAS	10/15/97	06/30/08	06/30/10
Stardust	SDU	02/07/99	02/15/06	- - -
Chandra X-Ray Observatory	CHDR	07/23/99	07/24/09	07/24/14
Imager for Magnetopause-to-Aurora Global Exploration	IMAG	03/25/00	05/30/02	TBS
Cluster 2 - S/C #2 (Samba)	CLU2	07/16/00	02/15/03	12/31/09
Cluster 2 - S/C #3 (Rumba)	CLU3	07/16/00	02/15/03	12/31/09
Cluster 2 - S/C #1 (Salsa)	CLU1	08/09/00	02/15/03	12/31/09
Cluster 2 - S/C #4 (Tango)	CLU4	08/09/00	02/15/03	12/31/09
Mars Odyssey 2001	M01O	04/07/01	08/24/04	12/31/10
Wilkinson Microwave Anisotropy Probe	WMAP	06/30/01	10/01/03	09/30/10
Advanced Tracking and Observational Techniques (ATOT)	ATOT	02/01/02	12/31/08	- - -
International Gamma Ray Astrophysics Lab	INTG	10/17/02	12/18/04	12/16/10
Hayabusa (MUSES - C)	MUSC	05/09/03	06/10/07	- - -
Mars Express Orbiter	MEX	06/02/03	02/11/06	12/31/08
Spirit (Mars Exploration Rover - A)	MER2	06/10/03	04/06/04	09/30/08
Opportunity (Mars Exploration Rover - B)	MER1	07/07/03	04/27/04	09/30/08
Spitzer Space Telescope (SIRTF)	STF	08/25/03	02/25/06	10/19/08



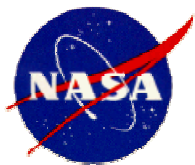
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DSN User / Mission Planning Set

– Ongoing / Approved Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
Rosetta	ROSE	02/26/04	12/31/15	---
Messenger	MSGR	08/03/04	03/19/12	---
Mars Reconnaissance Orbiter	MRO	08/12/05	12/31/10	12/31/15
Venus Express	VEX	11/09/05	09/24/07	01/22/09
New Horizons	NHPC	01/17/05	04/17/16	TBD
Space Technology 5 - S/C #1	ST51	02/28/06	06/11/06	TBD
Space Technology 5 - S/C #2	ST52	02/28/06	06/11/06	TBD
Space Technology 5 - S/C #3	ST53	02/28/06	06/11/06	TBD
Stereo Ahead	STA	06/23/06	09/23/08	09/23/11
Stereo Behind	STB	06/23/06	09/23/08	09/23/11
Dawn	DAWN	12/17/06	01/12/16	TBD
Phoenix	PHX	08/03/07	10/26/08	TBD
Kepler Mission	KLM	06/01/08	06/30/12	---
Lunar - A	LUNA	08/01/09	03/10/10	---



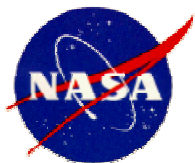
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DSN User / Mission Planning Set

– Advanced / Planning Projects –

Project	Acronym	Launch or Start	EOPM	EOEM
SELENE	SELE	07/16/07	08/26/07	TBD
Juno	JUNO	07/08/10	09/18/16	TBD
Mars Science Laboratory 2009	MSL	10/25/09	03/04/12	TBD
Space Interferometry Mission	SIM	03/13/11	09/13/16	09/13/21
James Webb Space Telescope	JWST	08/01/11	07/31/16	TBD
Mars Placeholder 2011	M11L	10/30/11	09/10/14	TBD
Mars Placeholder 2013	M13O	11/28/13	08/21/16	TBD



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DSN Major Downtimes by Date

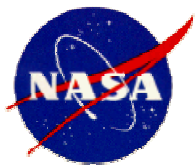


– 2006 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
DSS 16	Extended Downtime *	01/30/2006	TBD	TBD	05 – TBD	030	TBD
DSS 63	Antenna Controller Replacement	05/22/2006	10/01/2006	133	21 – 39	142	274
DSS 63	NIB - HBA Oil Condition Unit	05/22/2006	06/18/2006	28	21 – 24	142	169
DSS 15	Antenna Drive Cabinet Refurbishment	09/04/2006	10/08/2006	35	36 – 40	247	281
DSS 45	Antenna Controller Replacement	10/08/2006	12/10/2006	64	40 – 49	281	344

Note:

* Formal retirement of DSS-16 is pending. As of February 1, 2006 the station will be unavailable for scheduling spacecraft support, except for Launch support as deemed necessary.

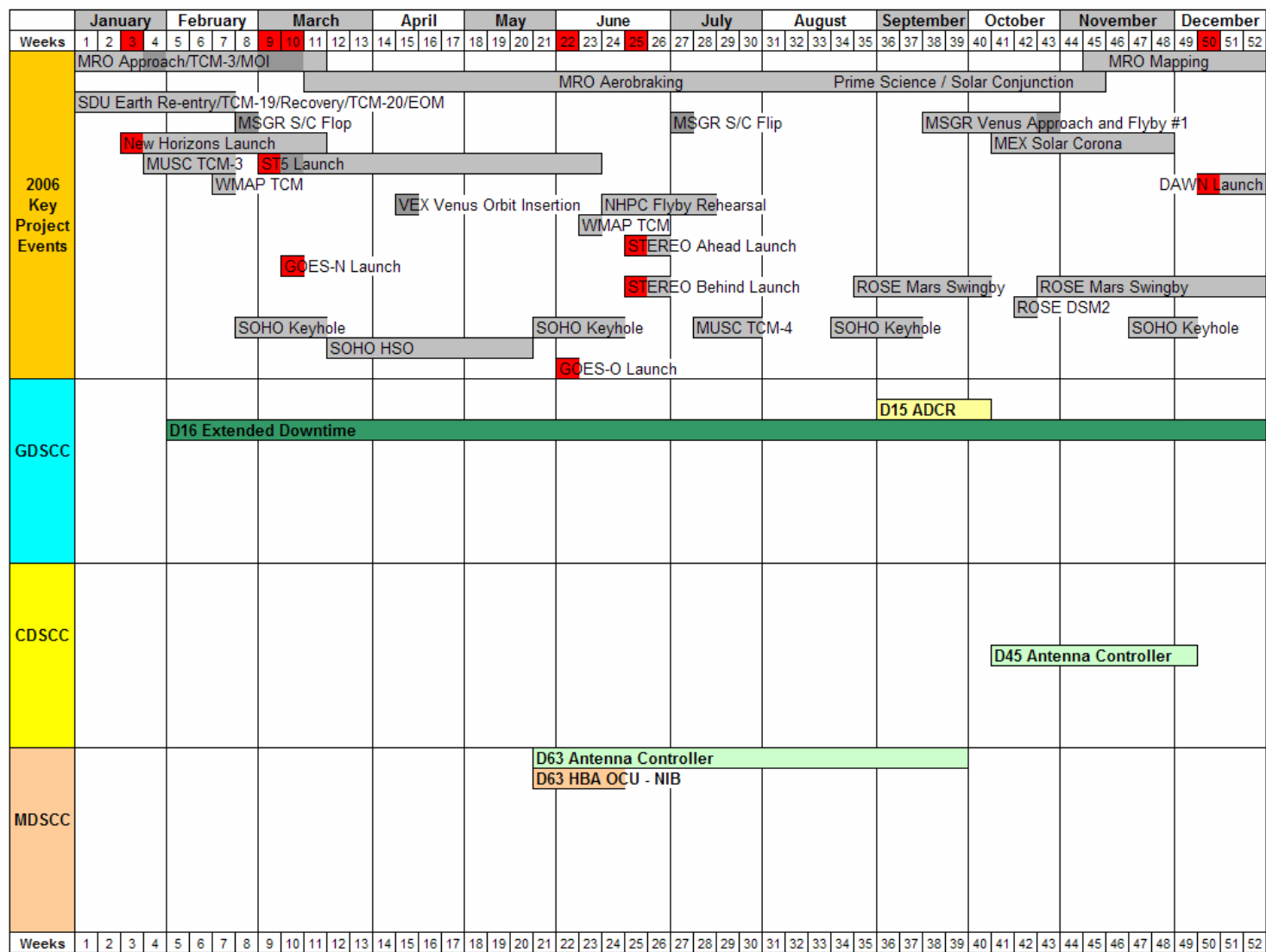


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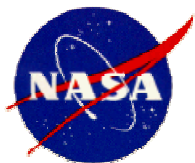
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DSN Major Downtimes by Date

– 2006 –



Revised: January 23, 2006



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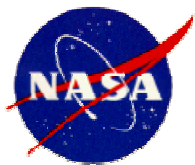
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DSN Major Downtimes by Date



– 2007 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
DSS 65	Antenna Drive Cabinet Refurbishment	02/26/2007	04/01/2007	35	09 – 13	057	091
DSS 65	Antenna Drive Cabinet Refurbishment Extension - Proposed	04/02/2007	04/29/2007	28	14 – 17	092	119
DSS 43	RegROUT and Painting - Proposed	02/02/2007	02/11/2007	10	05 – 06	033	042
DSS 65	NIB - S-Band 200W U/L Install	02/26/2007	04/01/2007	35	09 – 13	057	091
DSS 66	Hydraulic Pump/Brakes- Proposed	04/30/2007	05/08/2007	9	18 – 19	120	128
DSS 63	Hydrostatic Bearing Replacement	06/12/2007	09/16/2007	97	24 – 37	163	259
DSS 46	Hydraulic Pump/Brakes- Proposed	07/02/2007	07/10/2007	9	27 – 28	183	191
DSS 45	Antenna Drive Cabinet Refurbishment	08/27/2007	09/30/2007	35	35 – 39	239	273
DSS 45	NIB - S-Band 200W U/L Install	08/27/2007	09/30/2007	35	35 – 39	239	273

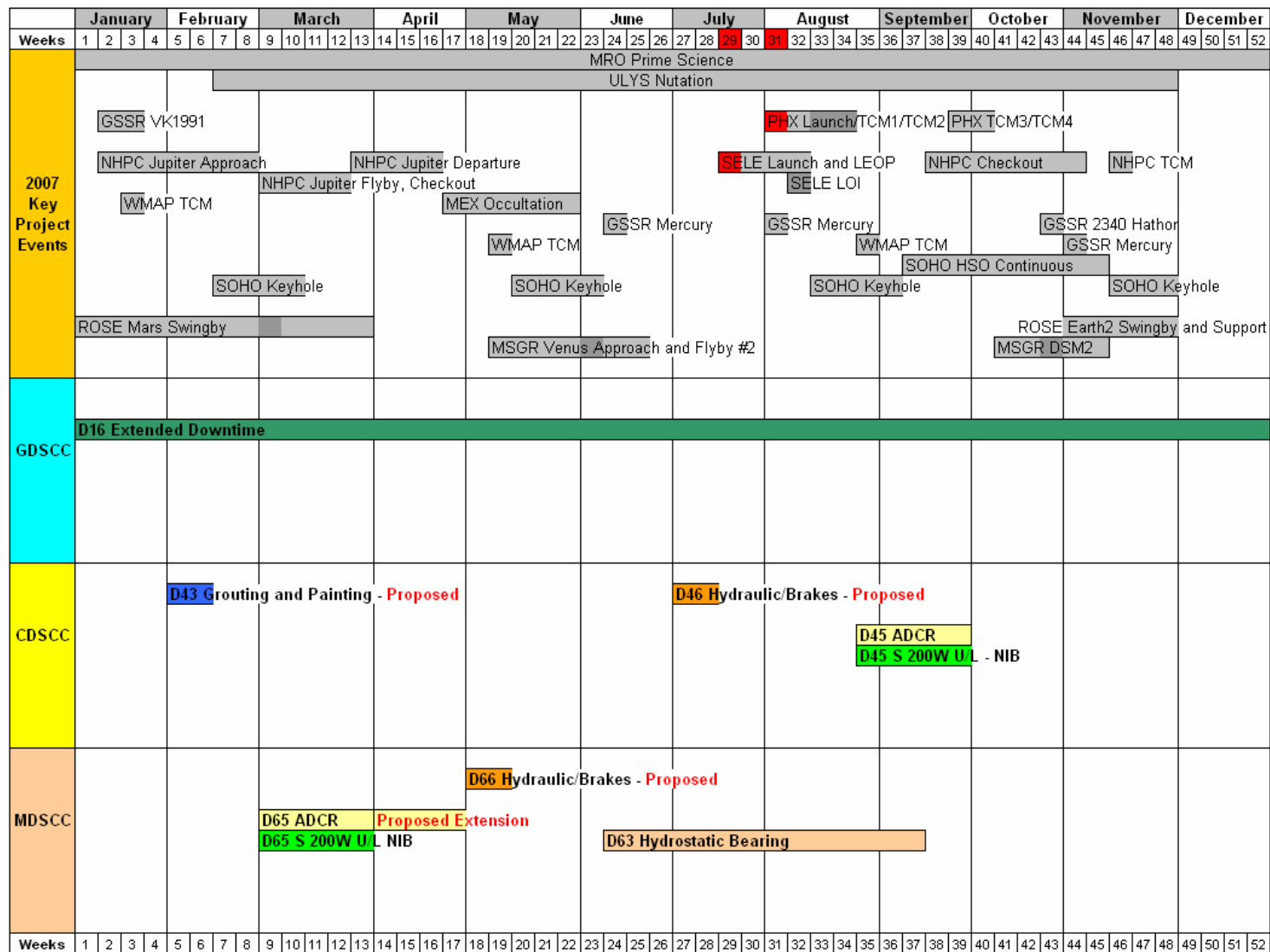


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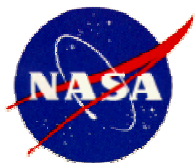
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DSN Major Downtimes by Date

– 2007 –



Revised: January 25, 2006



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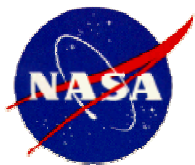
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DSN Major Downtimes by Date



– 2008 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
DSS 54	X/X-Ka Band - Proposed	02/18/2008	04/13/2008	056	08 – 15	049	104
DSS 15	Life Extension - Proposed	03/10/2008	05/25/2008	070	10 – 19	063	132
DSS 43	Life Extension - Proposed	09/29/2008	03/29/2009	182	40 – 13	273	088

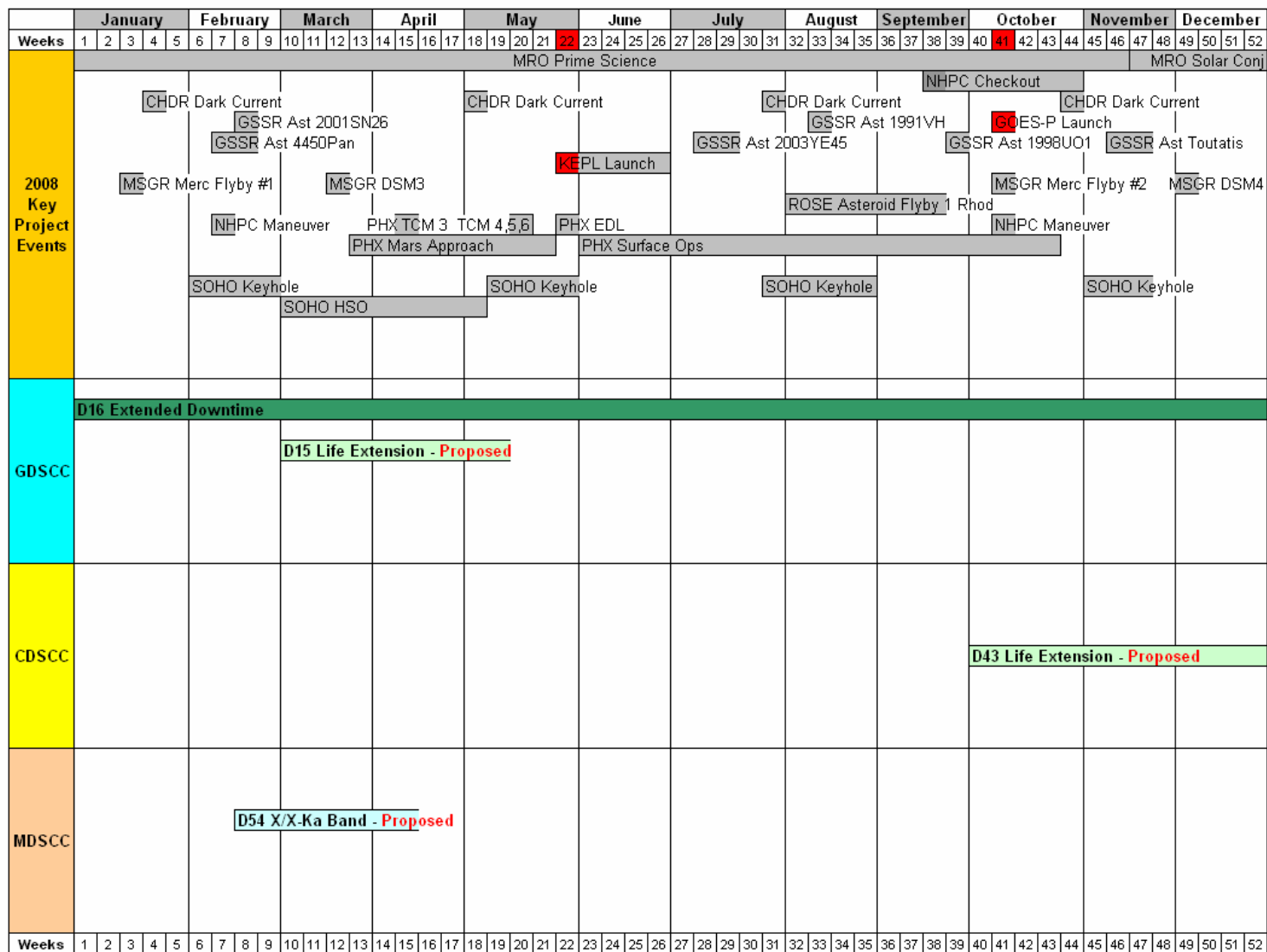


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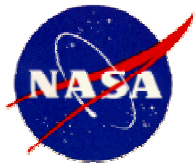
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DSN Major Downtimes by Date

– 2008 –



Revised: January 19, 2006



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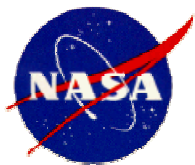
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DSN Major Downtimes by Date



– 2009 –

Site	Description	Start	End	Duration (days)	Week(s)	Start DOY	End DOY
DSS 43	Life Extension - Proposed	09/29/2008	03/29/2009	182	40 – 13	273	088
DSS 63	Life Extension - Proposed	03/30/2009	09/27/2009	182	14 – 39	089	270
DSS 14	Life Extension - Proposed	09/28/2009	04/04/2010	182	40 – 13	271	094



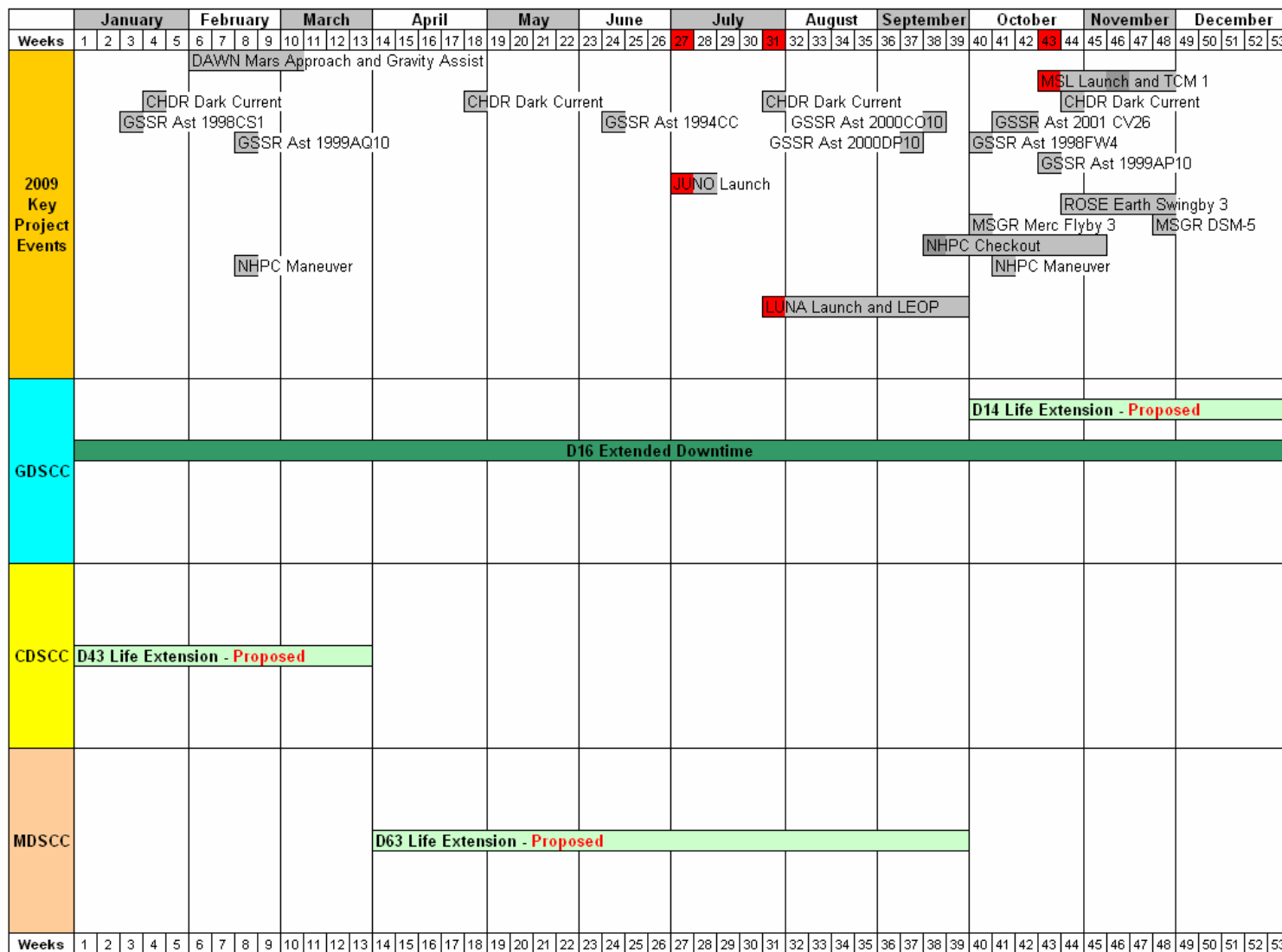
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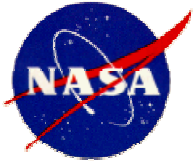
DSN Major Downtimes by Date



– 2009 –



Revised: January 19, 2006



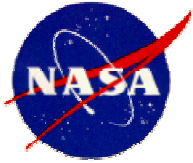
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IND Resource Implementation Planning Matrix

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		NSP/ TT&C
			Down	Up	Down	Up	Down	Up	
10	DSS-14	70M	✓	✓	✓	✓	N/A	N/A	✓
10	DSS-15	34HEF	✓	N/A	✓	✓	N/A	N/A	✓
10	DSS-16	26M	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	✓
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	✓	✓
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	✓
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	✓ ✓ ✓
40	DSS-34	34B1	✓	✓	✓	✓	✓ ✓ ✓	N/A	✓
40	DSS-43	70M	✓	✓	✓	✓	N/A	N/A	✓
40	DSS-45	34HEF	✓	N/A	✓	✓	N/A	N/A	✓
40	DSS-46	26M	✓	✓	N/A	N/A	N/A	N/A	N/A
60	DSS-54	34B1	✓	✓	✓	✓	TBD	N/A	✓
60	DSS-55	34B2	N/A	N/A	✓	✓	02/15/06	N/A	✓
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	✓
60	DSS-65	34HEF	✓	N/A	✓	✓	N/A	N/A	✓
60	DSS-66	26M	✓	✓	N/A	N/A	N/A	N/A	N/A
N/A = Capability Not Planned xx/xx/xx = Capability Date Recently Change As of: 01/25/06 ✓ ✓ ✓ = Capability Recently Exists ✓ = Capability Exists									



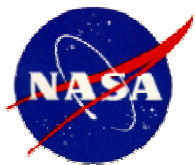
RESOURCE ALLOCATION REVIEW

Periods of Contention



RFC	Remaining contentions to be resolved in the JURAP and Mid-Range Scheduling Processes
The months indicated will be considered for the August RARB	

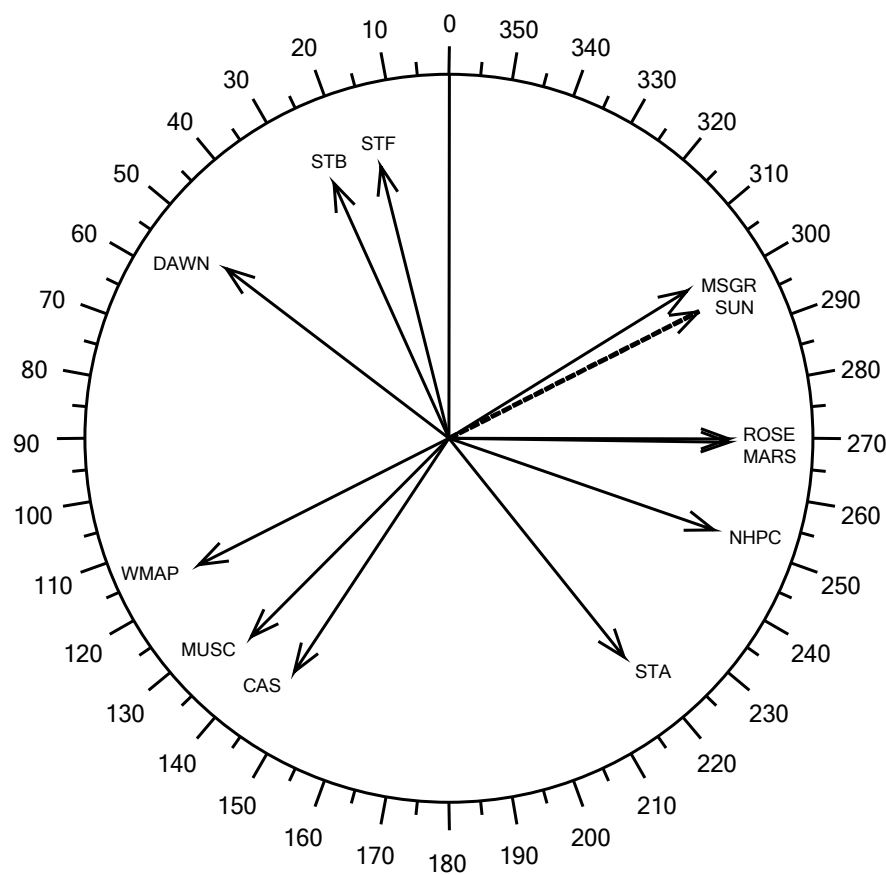
Month	Weeks		
	2007	2008	2009
January	01 – 04	01 – 05	01 – 05
February	05 – 08	06 – 09	06 – 09
March	09 – 13	10 – 13	10 – 13
April	14 – 17	14 – 17	14 – 18
May	18 – 22	18 – 22	19 – 22
June	23 – 26	23 – 26	23 – 26
July	27 – 30	27 – 31	27 – 31
August	31 – 35	32 – 35	32 – 35
September	36 – 39	36 – 39	36 – 39
October	40 – 43	40 – 44	40 – 44
November	44 – 48	45 – 48	45 – 48
December	49 – 52	49 – 52	49 – 53



RESOURCE ALLOCATION REVIEW

Spacecraft Right Ascension

January 15, 2007



THE SPACECRAFT RIGHT ASCENSION FIGURES SHOW THE POSITIONS OF THE SPACECRAFT IN THE SKY RELATIVE TO EACH OTHER ON THE 15TH OF EACH MONTH FOR THE YEAR INDICATED. RIGHT ASCENSION IS COMMONLY MEASURED IN HOURS, WITH 1 HOUR = 15 DEGREES.

THE ARROW INDICATES THE CENTER OF A SPACECRAFT VIEW FROM EARTH. EXTEND 60 DEGREES ON BOTH SIDES OF THE ARROW TO CALCULATE AN EIGHT (8) HOUR VIEW PERIOD.



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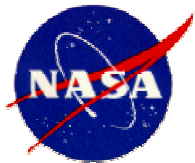
Events, Recommendations and Analyses



- ◆ **The RARB Redbook makes reference to monthly contention as low, moderate, severe, and extreme. The explanation of these terms is listed below.**
 - **Projected unsupportable time is expressed as low, moderate, severe, or extreme in the Analysis sections of this document. Projected unsupportable time is an estimate of the amount of requested time, typically in percentage of requirements or modified requirements, that is unsupportable, based on resource availability, other users' requirements, assumed priorities, and view periods. The following percentages apply:**

Low/Workable	= <20%
Moderate	= 20% to 30%
Severe	= 31% to 45%
Extreme	= >45%

Workable is a term used to express a condition wherein the projected unsupportable time is low. This condition occurs when the general forecasting analysis indicates a low percentage of unsupportable time or when RARB agreements have been made to reduce contention to a workable level. Workable essentially means that experience has shown that the remaining contention may be solved during final schedule preparations and negotiations.

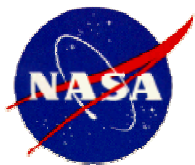


RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2007 Events, Analysis and Recommendations

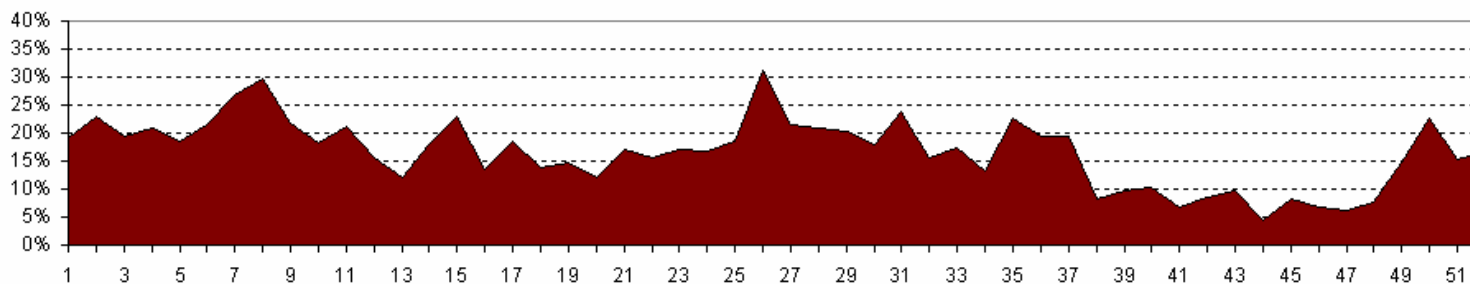


RESOURCE ALLOCATION REVIEW

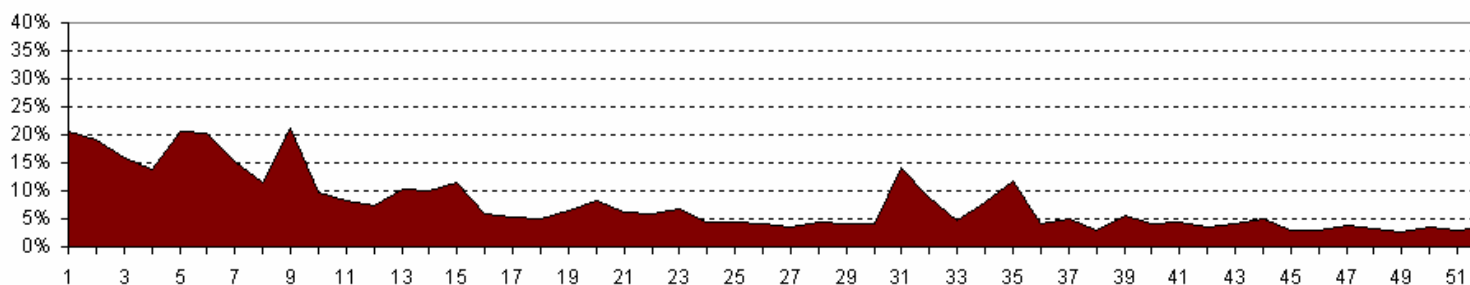
Events, Recommendations and Analyses

2007 Weekly Average User Unsupportable Time

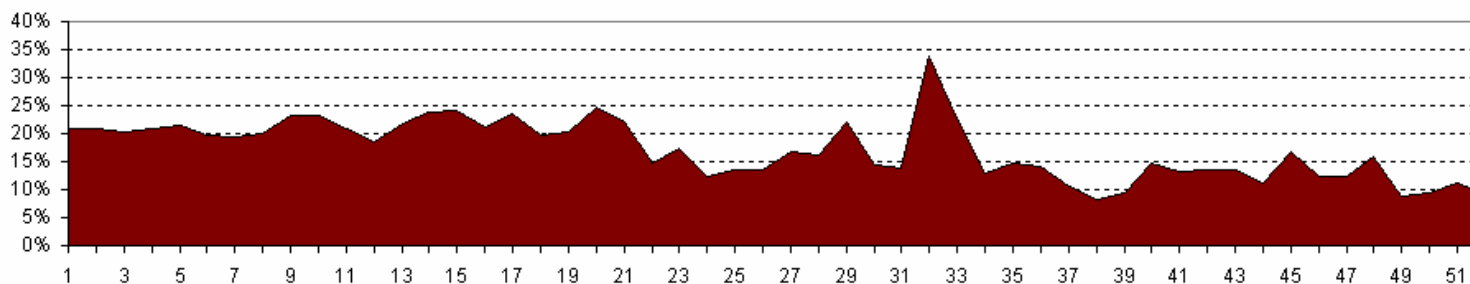
70M

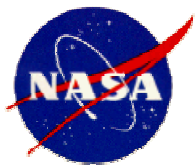


34HEF



34BWG1



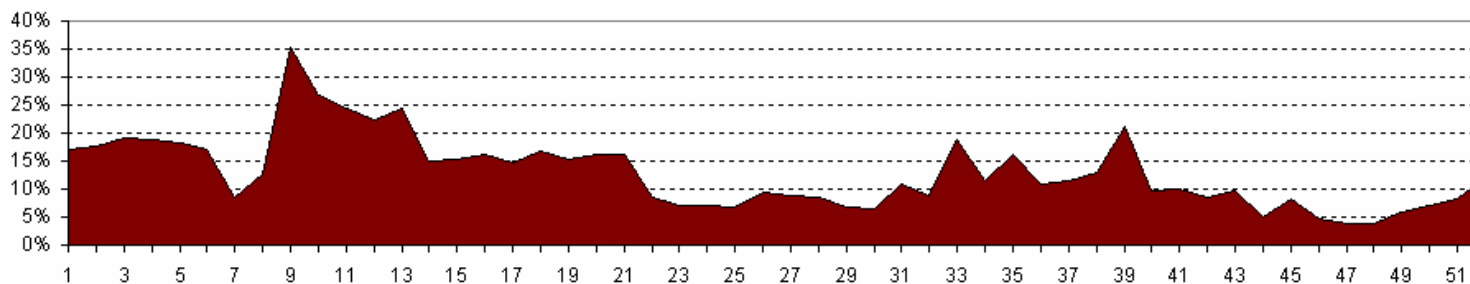


RESOURCE ALLOCATION REVIEW

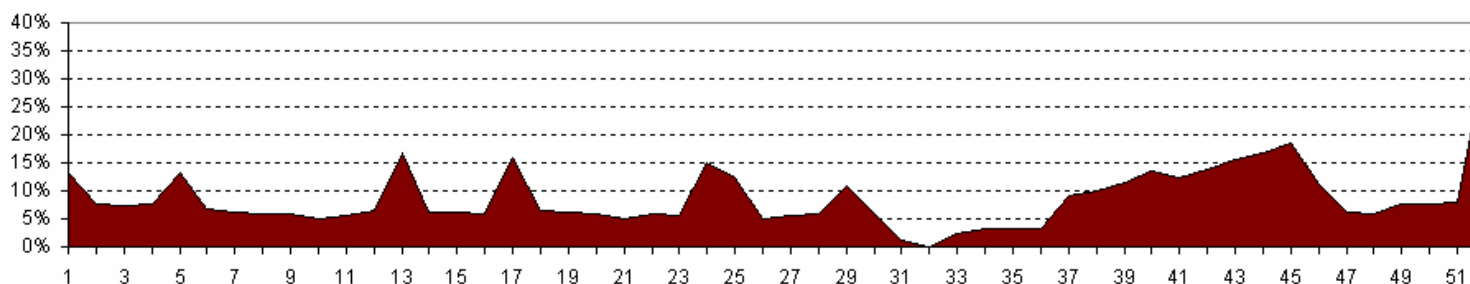
Events, Recommendations and Analyses

2007 Weekly Average User Unsupportable Time

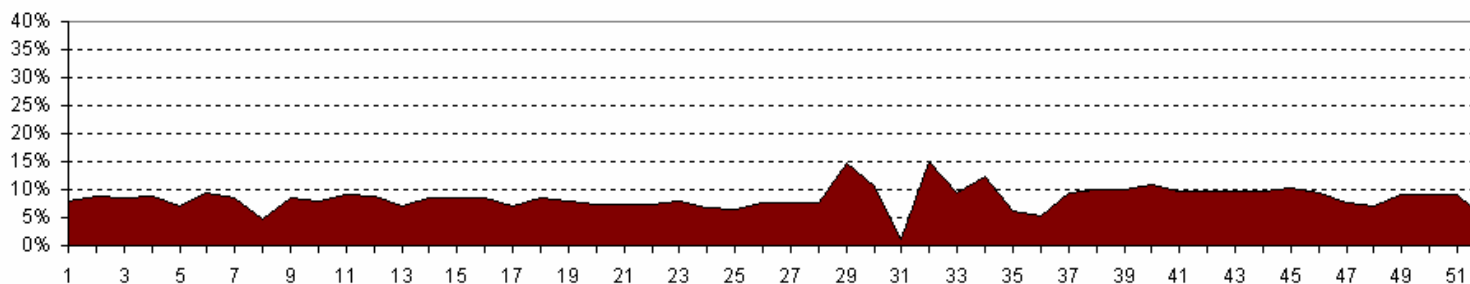
34BWG2

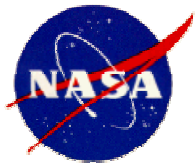


34HSB



26M

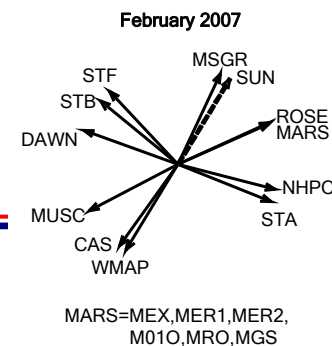




RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08)



EVENTS

DSS-43 proposed downtime for Bearing Regrout in weeks 05 – 06

Cassini Tour

Mars Express Bi-Static Radar in weeks 06 and 08 and Orbital Science

Mars Reconnaissance Orbiter Prime Science near continuous and Ka Ops Demo

New Horizons Jupiter Approach ending in week 07, maneuver support in weeks 06 and 08 and Flyby beginning in week 08

Rosetta Mars Swingby

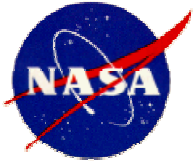
SOHO Keyhole event beginning in week 07, DOY 47

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses South Polar (Full Cycle) ending in week 07 and Nutation beginning in week 07, DOY 47

Voyager 1 MAGROL in week 05, DOY 32



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08) (continued)

RECOMMENDATIONS

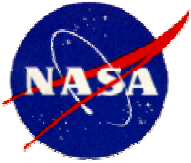
**DSS approve proposed downtime for DSS-43 beginning DOY 034 – 043 in weeks 05 – 06
Reduce routine maintenance at DSS-14 and 63 from two 8-hour supports to one 8-hour support. (1)**

CLU2 change array antenna requirement from DSS-27,24,15,14 to DSS-27,24,15 and from DSS-46,34,45,43 to DSS-46,34,45 in week 05. (1)

EGS Global VLBI change 24-hour support in week 07 to two 12-hour supports and move 1 support to week 06 (1)

M01O Map/MGS Map move 1 of 3 passes from DSS-65 and 5 passes from DSS-24 to DSS-24,25,55 in week 05. Delete the three 13-hour and the three 5.5-hour standalone passes at DSS-43 in weeks 05 and 06 and add six 8-hour passes at the 34BWG1 & 2 subnet. M01O Map/MGS Map move the two 10-hour passes from 34HEF to 34BWG2 in week 07. M01O Map and MSPA with MRO Prime Science delete the 5 passes at DSS-14 at DSS-63 and add ten 8-hour passes at the 70M in weeks 07 and 08. (1,2,3)

MEX Orbital Science change 3 of 7 passes at DSS-15,65 to MSPA with MGS Map and Beta Sup in weeks 07 and 08. (1)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08) (continued)

RECOMMENDATIONS

MGS Map and MSPA with M01O Map move 1 of 3 passes from DSS-65 and 5 passes from DSS-24 to DSS-24,25,55 in week 05 and move the two 10-hour passes from 34HEF to 34BWG2 in week 07. Move 3 of 6 standalone passes from the 34BWG2 subnet to MSPA with MEX Orbital Science at DSS-15,65 in weeks 07 and 08. (1,2,3)

MRO Prime Science change the three 8.3-hour and the three 7.5-hour passes at DSS-14 and DSS-63 to six 8-hour passes at DSS-14,63 in weeks 05 and at the 70M in week 06. MRO Prime Science and MSPA with M01O delete the 5 passes at DSS-14 at DSS-63 and add five 8-hour passes at the 70M and five 8-hour passes at 34BWG1 & 2 in weeks 07 and 08. (1)

MSGR Cruise move all passes from DSS-26,45,55 to 34BWG1. (2)

NHPC Jupiter Approach move 7 passes from DSS-43 to DSS-45 in week 07 and move 7 Flyby passes from DSS-43 to 70M in week 08. Move Maneuver passes from 70M to DSS-43 in weeks 06 and 08. (1)

ROSE Mars Swingby move 3 passes from DSS-15 to DSS-25 in weeks 05 and 06 and move 4 passes from 70M to DSS-15,24,54 in weeks 07 and 08. Change Delta DOR supports from DSS-14/43 to DSS-14/45 in weeks 05 – 08 and from DSS-14/63 to DSS-15/63 in week 08. (1,2)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08) (continued)

RECOMMENDATIONS

SOHO Keyhole move the 4 of 8 passes from DSS-14/27,43/46,63/66 to the 34BWG1 subnet in week 08. (1,2)

ULYS Nutation move all passes from DSS-34,43 to DSS-34 in weeks 07 and 08. (1)

VGR1 delete 1 of 7 passes at DSS-25,26 in week 06 and reduce all pass duration from 6 hours to 4 hours at DSS-25,26 and at DSS-55,54. (3)

VGR2 Reduce all pass duration from 8 hours to 4 hours. (1,2,3)

WIND change 1 of 7 passes at the 34BWG1 subnet to D/L only and move to DSS-45. (3)

WMAP move routine passes and maneuver passes from DSS-14,43 to DSS-14,34/45 in week 05. (1)



RESOURCE ALLOCATION REVIEW

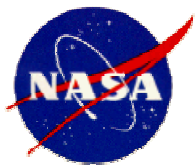
Events, Recommendations and Analyses

2007 – February (Weeks 05 - 08) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to extreme. This is due to the On-Going Projects' (Maintenance, Mars projects, MSGR, NHPC, ROSE, SOHO, ULYS, VGR1 and VGR2) view periods overlap by 90 to 100 percent. The projected unsupportable time is further compounded by the proposed DSS-43 downtime.
2. (34HEF) The projected unsupportable time is severe for DSS Maintenance in weeks 05 and 06 and for M01O Map/MGS Map in week 05. The unsupportable time is due to DSS Maintenance, M01O, MGS, MEX, MRO, MSGR, NHPC, ROSE, ULYS and VGR2 view periods overlap, compounded by proposed DSS-43.
3. (34BWG1) The projected unsupportable time in weeks 05 and 06 is moderate for DSS Maintenance and severe for VGR2 and WIND. The DSS Maintenance view period overlap with VGR 2 and WIND by 80 percent and VGR 2 and WIND's view period overlap by 100 percent compounded by view period overlap with the Mars projects, MSGR, NHPC, ROSE, SOHO and ULYS; compounded by proposed DSS-43 downtime.

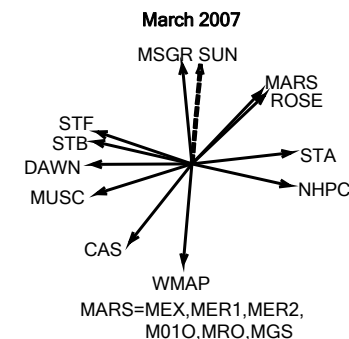
Contention levels on the 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – March (Weeks 09 - 13)



EVENTS

DSS-65 proposed downtime for Antenna Drive Cabinet Refurbishment (ADCR) and S/B 200W U/L Transmitter installation (NIB to ACDR) ending in week 13

Cassini Tour

Chandra ACA Dark Current Measurement and Lunar Eclipse in week 10

Mars Express Bi-Static Radar in weeks 10 and 12 and Orbital Science

Mars Reconnaissance Orbiter Prime Science near continuous, Ka Ops Demo and X/Ka Delta DOR in weeks 09 and 10

New Horizons Jupiter Flyby in week 09, Departure in week 10 and maneuver in week 11

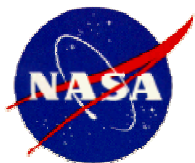
Rosetta Mars Swingby ending in week 13, DOY 85

SOHO Keyhole event ending in week 10, DOY 68

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation



RESOURCE ALLOCATION REVIEW

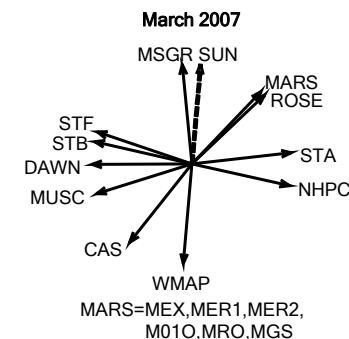
Events, Recommendations and Analyses

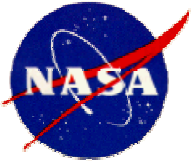
2007 – March (Weeks 09 - 13)

EVENTS

Venus Express Bi Static Radar in week 11

Voyager 2 DTR Playback in week 10, beginning on DOY 67/68 and ASCAL and MAGROL in week 11, DOY 72 and 75





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – March (Weeks 09 - 13) (continued)

RECOMMENDATIONS

DSS reduce DSS-14 and DSS-63 routine maintenance from 2 supports to one 8-hour support per week in weeks 10 – 13. (2)

CHDR move 10 of 21 passes from 34BWG1 to DSS-27,46,66 in weeks 09 and 10, (3)

CLU2 change array antenna supports from DSS-66/54/63 to DSS-66/54. Change array antenna support at DSS-27/24/15/14 to DSS-27/24/15 in week 10 and change DSS-46/34/45/43 to DSS-46/34/45 in week 12. (2)

GSSR reduce Mercury Radar support from 6 hours to 4 hours in week 09. (1)

M01O Map and MSPA with MGS reduce pass duration at DSS-43 from 12 hours to 8 hours in week 09. M01O Map and MSPA with MGS delete the one 14-hour pass at DSS-25,26,55 and the one M01O Map standalone pass at DSS-24,25,55,54 in week 09. M01O Map reduce stand alone pass duration from 10 hours to 8 hours and move from 70M to DSS-43 in week 11. M01O Map change 3 passes at DSS-43 to MSPA with MGS in weeks 13 . (1,4)

MEX Orbital Science move 5 of 7 passes from DSS-15,55 to DSS-15,26,55,54 and MSPA with MGS in weeks 09 and 10 and move 5 of 7 passes from DSS-15,55 to DSS-15,55,54, MSPA with MGS 3 passes in week 12 and 2 passes in week 13. (2,4)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – March (Weeks 09 - 13) (continued)

RECOMMENDATIONS

MGS Map and Beta Sup and MSPA with M01O reduce pass duration at DSS-43 from 12 hours to 8 hours in week 09. MGS Map and Beta Sup and MSPA with M01O Map delete the one 14-hour pass at DSS-25,26,55 in week 09. MGS Map and Beta Sup delete the 6 passes at the 34BWG2 in weeks 12 and 13 and MSPA 3 passes in week 12 and 2 passes in week 13 with MEX at DSS-15,55,54 and MSPA 3 passes with M01O Map in week 13. (1,4)

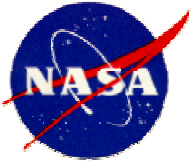
NHPC Jupiter Departure move 3 passes from 70M to DSS-14,63,45 in week 12. (1)

SOHO Keyhole Event move 4 of 8 passes from DSS-14/27,45/46,63/66 to 34BWG1 in week 09. (1)

VGR1 reduce all pass duration from 6 hours to 4 hours at DSS-25,26 and at DSS-55,54, delete 1 of 7 passes at DSS-25,26 in week 12. (3)

VGR2 Reduce all pass duration from 8 hours to 4 hours. (1,2,3)

WIND change 2 of 7 passes at the 34BWG1 subnet to D/L only and move to DSS-45 in weeks 09 and 10. (3)



RESOURCE ALLOCATION REVIEW

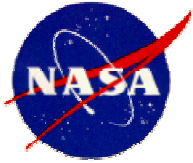
Events, Recommendations and Analyses

2007 – March (Weeks 09 - 13) (continued)



ANALYSES

1. (70M) The projected unsupportable time is moderate to extreme. This is due to the On-Going Projects' (Maintenance, GSSR Mercury, Mars missions, MSGR, NHPC, ROSE, SOHO, ULYS, VGR1 and VGR2) view periods overlapping with each other by 90 to 100 percent. The projected unsupportable time is further compounded by the proposed DSS-65 downtime.
2. (34HEF) The projected unsupportable time is moderate to extreme for DSS Maintenance in all weeks, for MEX Orbital Science and MGS MSPA with MEX in week 09. The unsupportable time is due to DSS Maintenance, MGS, MEX, MRO, MSGR, NHPC. ROSE and VGR2 view periods overlap, compounded by proposed DSS-65 downtime.
3. (34BWG1) The projected unsupportable time is moderate to severe for DSS Maintenance, MGS MSPA with MEX, ULYS, VGR2 and WIND. The view period for DSS Maintenance overlaps with SOHO, ULYS, VGR 2 and WIND by 100 percent. DSS Maintenance has an 80 percent view period overlap with MEX, MGS, MSGR, NHPC and ROSE; compounded by compounded by proposed DSS-65 downtime.
4. (34BWG2) The projected unsupportable time is moderate to severe for DSS-Maintenance, M01O and M01O MSPA with MGS, MEX orbital Science, MGS Map and Beta Sup and VGR. This caused by 80 to 100 percent view period overlap with DSS maintenance, Mars missions, STA and STB and VGR1, compounded by the proposed DSS-65 downtime.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17)

EVENTS

DSS-65 proposed downtime extension for Antenna Drive Cabinet Refurbishment (ADCR) and S/B 200W U/L Transmitter installation (NIB to ACDR) ending in week 17

ATOT A01 Imagery 24-hour semi-annual event at DSS-43 in week 17

Cassini Tour

Goldstone Solar System Radar Mercury Radar in week 16

Mars Express Bi-Static Radar in weeks 14 and 16, Occultation beginning in week 17 and Orbital Science

Mars Reconnaissance Orbiter X/Ka Delta DOR in week 17, Prime Science near continuous and Ka Ops Demo

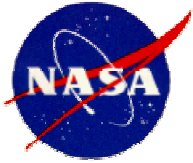
New Horizons maneuver in week 17 and Jupiter Departure

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

Venus Express Occultation in weeks 14 and 16 and movie in week 15



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

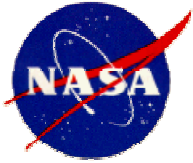
2007 – April (Weeks 09 - 13)



EVENTS

Voyager 1 DTR Array Playback on DOY 116 at DSS-15/14 in week 17

WIND TCM in week 14



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – April (Weeks 14 – 17) (continued)

RECOMMENDATIONS

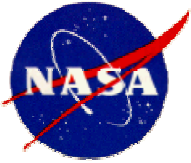
DSS Approve DSS-65 downtime extension ending in week 17. Reduce DSS-14 and DSS-63 routine maintenance from two 8-hour supports to one 8-hour support. (1,2)

CAS Tour move all passes from 34HEF to DSS-15,45,55 and move the 2 passes from DSS-24,25,26,34,54,65 to DSS-24,25,26,34,54,55 in week 16. (2)

CLU2 change array antenna supports from DSS-66/65/63 to DSS-66/54/63. (2)

M01O Map and MSPA with MGS move the 2 to 3 passes per week from the 70M to DSS-43 and DSS-63 as follows: 2 passes in week 14 and 3 passes in week 15 to DSS-63 and move 2 passes in week 16 and 3 passes in week 17 to DSS-43. M01O Map and MSPA with MEX Occultation move 3 passes from the 70M to DSS-15,63 in week 17. M01O Map move 2 of 5 standalone passes from the 70M to DSS-14, move remaining 3 passes to DSS-63 and reduce pass duration from 10 hours to 9.5 hours. Move the 1 pass from the 70M to DSS-43 in week 17. (1,2)

MEX Occultation MSPA with M01O Map move 3 passes from the 70M to DSS-15,63 in week 17. MEX Occultation move the 1 of 4 standalone passes from DSS-14,65 to DSS-14,63, move remaining 3 passes to DSS-15 and reduce pass duration from 11 hours to 7 hours in week 17. MEX Orbital Science move passes from DSS-15,65 to DSS-15,55 in weeks 14 -16. (1,2)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

MGS Map and Beta Sup move 3 to 7 passes from DSS-25,26,55,65 to DSS-25,26,54,55.

MGS Map and Beta Sup and MSPA with M01O move the 2 to 3 passes per week from the 70M to DSS-43 and DSS-63 as follows: 2 passes in week 14 and 3 passes in week 15 to DSS-63 and move 2 passes in week 16 and 3 passes in week 17 to DSS-43. (1,2,4)

MSGR Cruise move the 3 passes per week from 34HEF to DSS-15,26,45,55. (2)

VGR1 reduce all pass duration from 6 hours to 4 hours at DSS-25,25 and at DSS-55. (4)

VGR2 reduce pass duration from 8 hours to 4 hours at DSS-34,45,43. (1,2,3)



RESOURCE ALLOCATION REVIEW

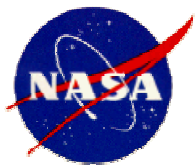
Events, Recommendations and Analyses

2007 – April (Weeks 14 - 17) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe. This is due to oversubscription of the 70M subnet and the On-Going Projects' (Maintenance, GSSR Mercury, Mars missions, NHPC, ULYS, VGR1 and VGR2) view periods overlapping with each other by 50 percent. The projected unsupportable time is further compounded by the proposed DSS-65 downtime extension.
2. (34HEF) The projected unsupportable time is moderate for DSS maintenance due to view period overlap, compounded by the proposed DSS-65 downtime extension.
3. (34BWG1) The projected unsupportable time is moderate to severe for DSS Maintenance, MGS, ULYS, VGR2 and WIND. The view period for DSS Maintenance overlaps with ULYS, VGR 2 and WIND. DSS Maintenance has a 100 percent view period overlap with ULYS and WIND.
4. (34BWG2) The projected unsupportable time is moderate to severe for DSS-Maintenance, MGS, MEX orbital Science and OCC, and VGR1. This is due to view period overlap with DSS maintenance, Mars missions, MSGR, STA and VGR1, compounded by the proposed DSS-65 downtime extension.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – May (Weeks 18 - 22)

EVENTS

DSS-66 proposed downtime for Haudraulics/brakes beginning in weeks 18 and 19

Cassini Tour

EGS Global VLBI 24-hour semi-annual event at DSS-14/63 in week 21

GSSR Asteroid 1862 Apollo in week 19

Mars Express Bi-Static Radar in weeks 18, 20 and 22 and Occultation

Mars Reconnaissance Orbiter Prime Science near continuous, Ka Ops Demo and X/Ka Delta DOR in week 21

MESSENGER Venus Approach and Delta DOR in week 20

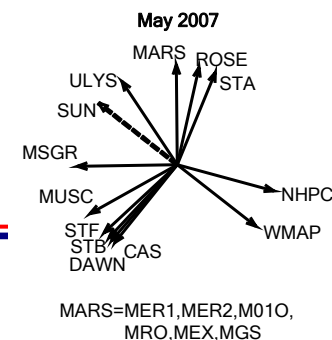
New Horizons Jupiter Departure

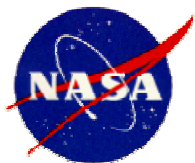
SOHO Keyhole event beginning in week 20, DOY 139

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

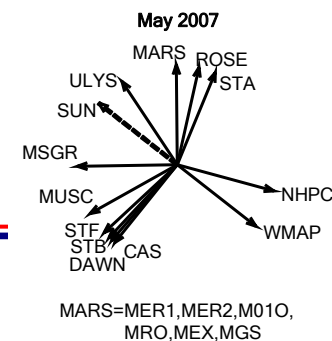
2007 – May (Weeks 18 - 22)

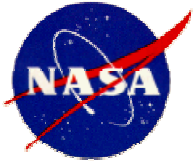
EVENTS

Venus Express Occultation

Voyager 1 MAGROL in week 18, DOY 125

WMAP Maneuver in week 21





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

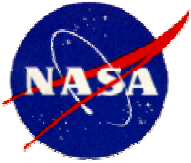
2007 – May (Weeks 18 - 22) (continued)



RECOMMENDATIONS

DSS approve downtime for DSS-66 Haudraulics/brakes installations beginning in weeks 18 on DOY 120 and ending in week 19 on DOY 128.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

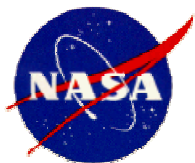
Events, Recommendations and Analyses

2007 – May (Weeks 18 - 22) (continued)

ANALYSES

1. (70M) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
2. (34HEF) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
3. (34BWG1) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
4. (34BWG2) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
5. (34BHSB) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
6. (26M) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.

Contention levels on the 70M, 34M and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – July (Weeks 27 - 30)

EVENTS

DSS Approved DSS-63 Hydrostatic Bearing Replacement downtime and DSS-46 proposed downtime for Haudraulics/brakes beginning in week 27 and ending in week 28

Cassini Tour

Chandra ACA Dark Current Measurement and Earth Eclipse in week 27

GSSR Mercury RSD with Green Bank Telescope in week 30

Mars Express Bi-Static Radar in weeks 28 and 30 and Orbital Science

Mars Reconnaissance Orbiter Prime Science near continuous, Ka Ops Demo and X/Ka Delta DOR in week 29

New Horizons Cruise Telemetry and Beacon support

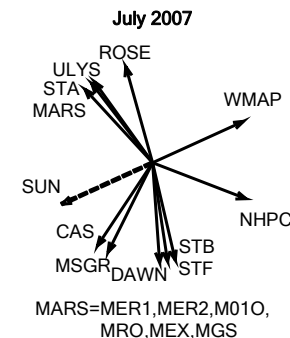
SELENE Launch, Initial Acquisition and LEOP beginning in week 29 on DOY 197

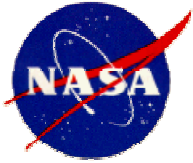
STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation

WIND TCM in week 27





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2007 – July (Weeks 27 - 30) (continued)

RECOMMENDATIONS

ACE move 3 of 7 passes from DSS-46 to DSS-34 in week 27. (6)

CHDR move 7 passes from DSS-27,46,66 to DSS-27,66 in weeks 27 and 28. (6)

CLU2 move all SSO and MSO supports from DSS-46/34/45/43 to DSS-34/45/43 in week 27. (6)

DSS approve downtime for DSS-46 Haudraulics/brakes installations beginning in weeks 27 on DOY 183 and ending in week 28 on DOY 191. (6)

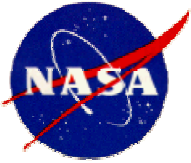
MRO Prime Science move 7 of 14 passes from 34B1,34B2 to the 34HEF and in week 29, move 4 of 7 passes to 34B2 and the remaining 3 passes to DSS-34,45. (3,4)

NHPC Beacon move the 1 pass from DSS-24,34 to DSS-15,45 in week 29. (3)

SOHO TSO change 7 passes to D/L and move from DSS-27,46,66 to DSS-15,45,65 in week 29. (5,6)

STA move 7 passes from DSS-26,34,54 to DSS-26,45,65 in week 29. (3,4)

VGR2 reduce pass duration from 8 hours to 6 hours in weeks 27 – 29. (1,2,3)



RESOURCE ALLOCATION REVIEW

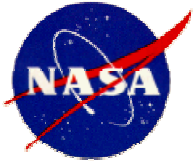
Events, Recommendations and Analyses

2007 – July (Weeks 27 - 30) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe. The unsupportable time is due to 100 percent view period overlap for Mars missions, ULYS, and VGR2 and these missions' view period have a 50 percent overlap with DSS Maintenance, compounded by the approved DSS-63 downtime.
2. (34HEF) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
3. (34BWG1) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
4. (34BWG2) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
5. (34BHSB) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.
6. (26M) The projected unsupportable time is low to moderate and should resolve during final schedule preparation and negotiations.

Contention levels on the 34M and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

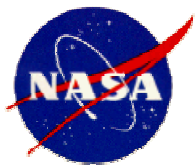


RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2008 Events, Analysis and Recommendations

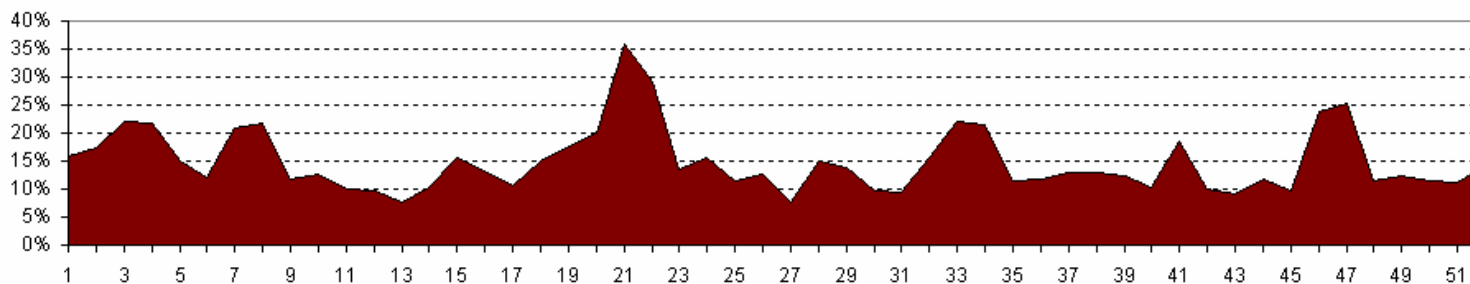


RESOURCE ALLOCATION REVIEW

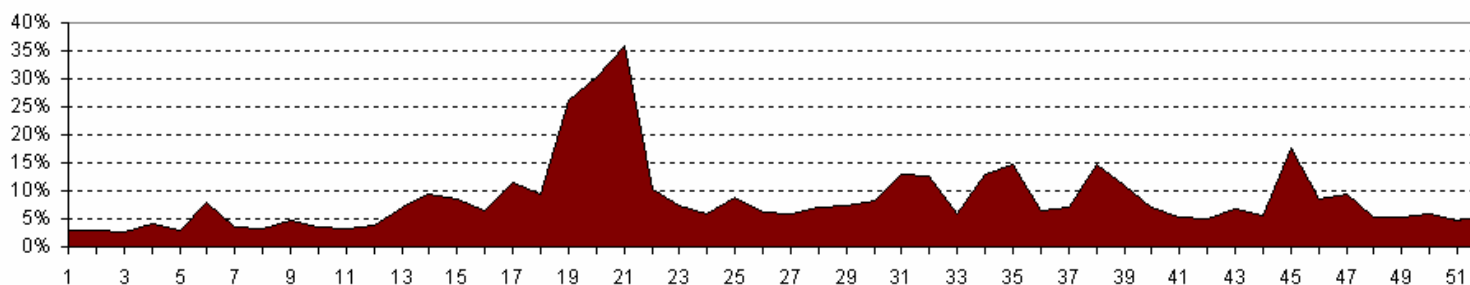
Events, Recommendations and Analyses

2008 Weekly Average User Unsupportable Time

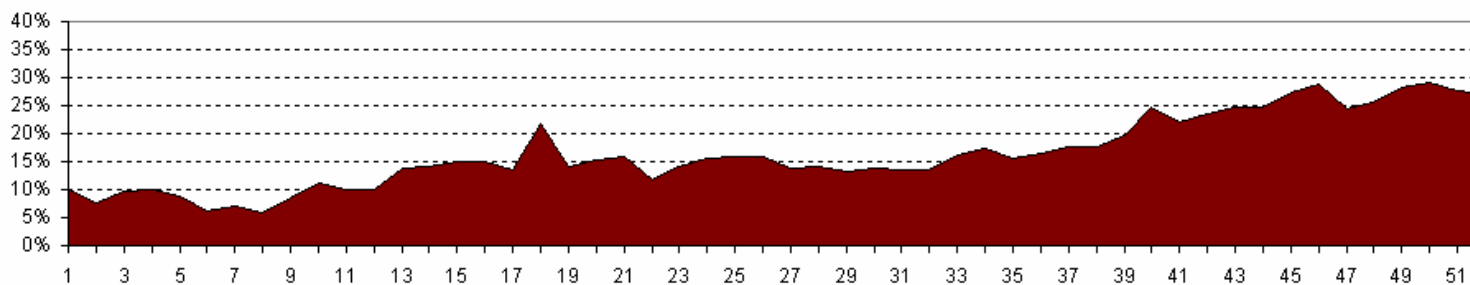
70M

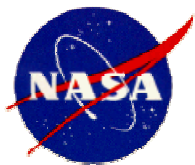


34HEF



34BWG1



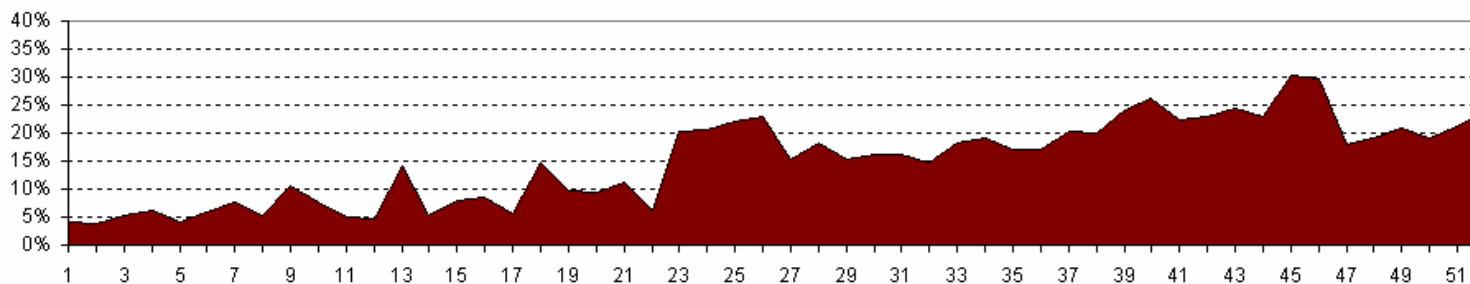


RESOURCE ALLOCATION REVIEW

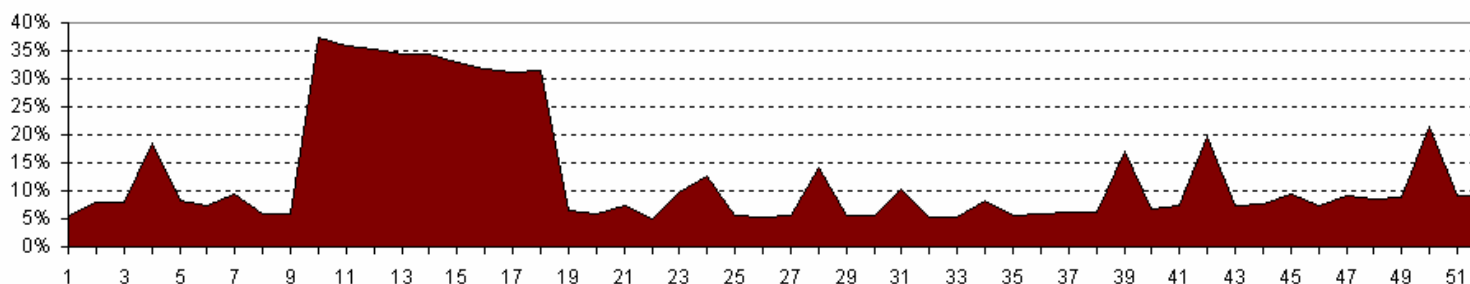
Events, Recommendations and Analyses

2008 Weekly Average User Unsupportable Time

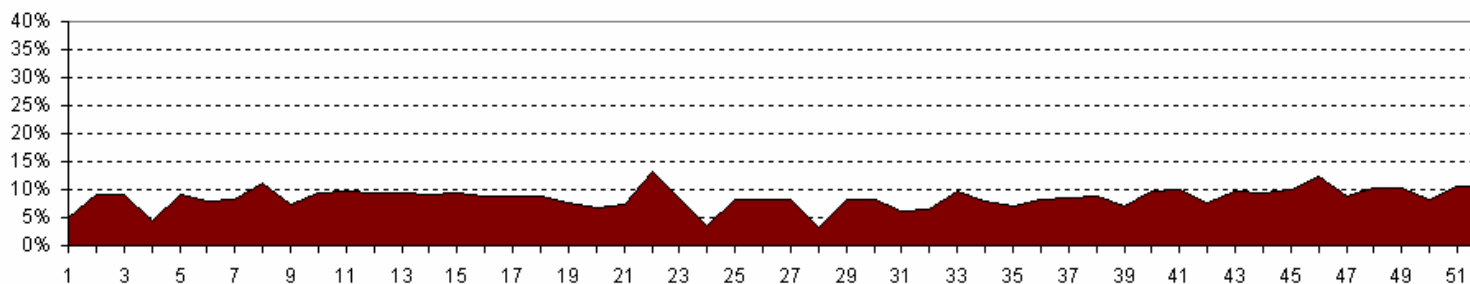
34BWG2



34HSB



26M





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09)

EVENTS

DSS-54 proposed downtime (X/Ka Band Installation) beginning in week 08

ATOT A01 Astrometry 24-hour semi-annual event at DSS-43 in week 07

Cassini Tour

EGS EVN Global VLBI 24 hour event at DSS-14/63 in week 09

Goldstone Solar System Radar Asteroid 2001 SN26 in week 06 and Asteroid 4450PAN in weeks 07 and 08

Mars Odyssey Delta DOR in week 07 and Mapping

Mars Express Bi-Static Radar in weeks 06 and 08 and Orbital Science

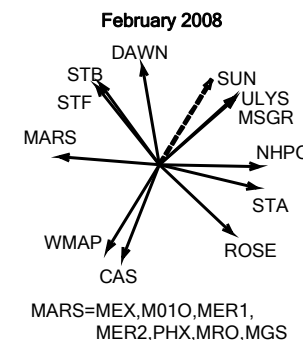
Mars Reconnaissance Orbiter Prime Science, Ka Ops Demo and X/Ka Delta DOR in week 09

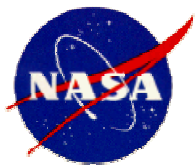
MESSENGER Deep Space Maneuver 3 on DOY 078 in week 12

New Horizons Beacon and Cruise Telemetry

Phoenix Delta DORs

SOHO Keyhole Event beginning in week 06 and Maneuver in week 08





RESOURCE ALLOCATION REVIEW

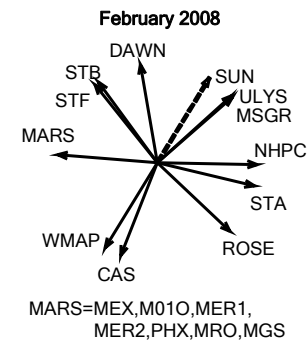
Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09)

EVENTS

STEREO Ahead Prime Science

STEREO Behind Prime Science





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-54 downtime for X/Ka Band installation beginning in week 08.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/65/63 in week 09.

ULYS move all D/L supports from DSS-54 to DSS-65 in weeks 08 – 09.



RESOURCE ALLOCATION REVIEW

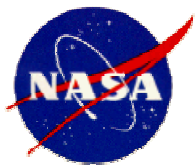
Events, Recommendations and Analyses

2008 – February (Weeks 06 - 09) (continued)

ANALYSES

(34BWG1) DSS-54 antenna is unavailable for use in weeks 06 – 09 for CLUS and ULYS.
Support requiring DSS-54 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG2, 34HSB and 26M subnets are workable
and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13)

EVENTS

DSS-15 proposed downtime (Life Extension) beginning in week 11

DSS-54 Downtime (X/Ka Band Installation)

Cassini Tour

Chandra ACA Dark Current Measurement in week 10

EGS EVN J-M5 18 hour event at DSS-14/63 in week 10

Goldstone Solar System Radar Mercury Radar in week 12

Mars Odyssey Delta DOR in week 11, Mapping and THEMIS augmentation beginning on DOY 064 in week 10

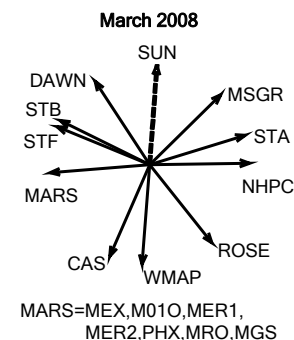
Mars Express Bi-Static Radar in weeks 10 and 12 and Orbital Science

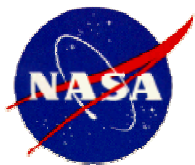
Mars Reconnaissance Orbiter Prime Science, Ka Ops Demo and X/Ka Delta DOR in week 13

MESSENGER DSM-3 on DOY 078 in week 12

New Horizons Cruise Telemetry ending in week 10 and Beacon support ongoing

Phoenix Approach beginning in week 13 and Delta DORs





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13)

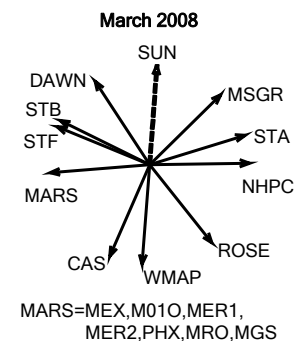
EVENTS

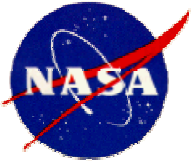
SOHO HSO continuous beginning in week 10

STEREO Ahead Prime Science

STEREO Behind Prime Science

Voyager 2 DTR PB at DSS-43 on DOY 065 – 066 in week 10 and ASCAL on DOY 070 in week 10 and MAGROL on DOY 073 in week 11





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-15 downtime for Life Extension and DSS-54 downtime for X/Ka Band installation. (1,2)

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/65/63 in weeks 11 and 13, move all SSO supports from DSS-27/24/15/14 to DSS-27/24/14. Move all MSO supports from DSS-27/24/15/14 to DSS-27/24/14 in week 10. (1,2)

MEX Orbital Science standalone, MSPA 7 passes per week with MGS Map/Beta Supplement for 8 hours at DSS-24,25 in weeks 10-13. (2)

MGS Map/Beta Supplement standalone, increase support from 4 hours to 8 hours and MSPA 7 passes per week with MEX Orbital Science for 8 hours at DSS-24,25 in weeks 10-13. (2)

ULYS move all D/L supports from DSS-54 to DSS-65 in weeks 10 – 13. (2)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – March (Weeks 10 - 13) (continued)

ANALYSES

1. (34HEF) DSS-15 antenna is unavailable for use in weeks 10 - 13 for CLUS, RFC, SGP and ULYS. Support requiring DSS-15 has been moved to other resources.
2. (34BWG1) The projected unsupportable time is moderate to Severe for DSS Maintenance, IMAG, INTG, MEX, MGS, MRO, MSGR, PHX, STB, ULYS, VGR2 and WIND due to oversubscription of the subnet, specifically in the MARS view period and compounded by the DSS-15 and DSS-54 downtime.

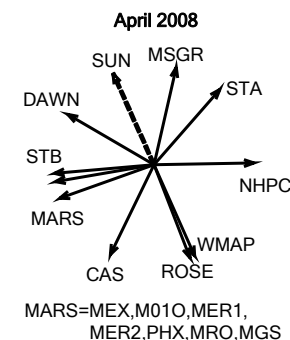
Contention levels on the 70M, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17)



EVENTS

DSS-15 proposed downtime (Life Extension)

DSS-54 proposed downtime (X/Ka Band Installation) ending in week 15

Cassini Tour

Mars Odyssey Delta DOR in week 16, Mapping, THEMIS and Relay beginning in week 14

Mars Express Bi-Static Radar in weeks 14 and 15 and Occultation beginning in week 15

Mars Reconnaissance Orbiter Prime Science, Ka Ops Demo and X/Ka Delta DOR in week 17

New Horizons Beacon

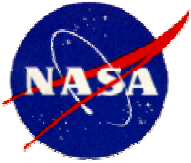
Phoenix Approach, Delta DOR, and TCM on DOY 101 in week 15

SOHO HSO continuous

STEREO Ahead Prime Science

STEREO Behind Prime Science

Voyager 1 Array DTR PB at DSS-15/14 on DOY 115 in week 17



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-15 downtime for Life Extension and DSS-54 downtime for X/Ka Band installation in weeks 14 and 15. (2,3)

CAS Tour change support from DSS-15,45,55 to DSS-15,25,34,55. (1)

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/65/63 in week 15. Move all SSO supports from DSS-27/24/15/14 to DSS-27/24/14. Move all MSO supports from DSS-27/24/15/14 to DSS-27/24/14 in week 14. (1,2)

MEX Orbital Science standalone, MSPA 7 passes per week with MGS Map/Beta Supplement for 8 hours at DSS-24,25. (2)

MGS Map/Beta Supplement standalone, increase support from 4 hours to 8 hours and MSPA 7 passes per week with MEX Orbital Science for 8 hours at DSS-24,25 in weeks 14 – 17. (2)

VGR1 DTR Array move from DSS-14/15 to DSS-14/25 in week 17. (1)



RESOURCE ALLOCATION REVIEW

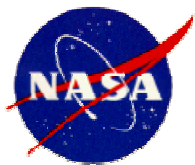
Events, Recommendations and Analyses

2008 – April (Weeks 14 - 17) (continued)

ANALYSES

1. (34HEF) The projected unsupportable time is moderate to severe for CAS, PHX, CLU2, VGR2 and M01O due to oversubscription of the subnet, specifically in the overlapping periods of the Mars and Saturn view period compounded by the DSS-15 and DSS-54 downtime.
2. (34BWG1) The projected unsupportable time is moderate to severe for DSS Maintenance, IMAG, INTG, MEX, MGS, MRO, MSGR, PHX, STB, ULYS, VGR2 and WIND due to oversubscription of the subnet, specifically in the Mars view period and compounded by the DSS-15 and DSS-54 downtime.

Contention levels on the 70M, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22)

EVENTS

DSS-15 proposed downtime (Life Extension) ending in week 19

ATOT A01 Imagery 24-hour semi-annual event at DSS-43 in week 18

Cassini Tour

EGS Global VLBI 24 hour quarterly epoch at DSS-14/63 in week 21 and EVN J-M5 18 hour event at DSS-14/63 in week 22

Goldstone Solar System Radar Mercury Radar in weeks 20 and 21

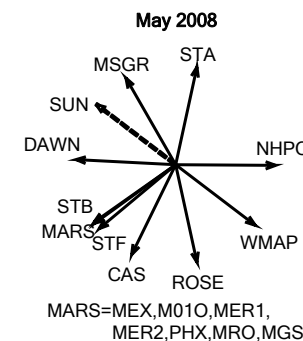
Kepler Launch and Initial Acquisition on DOY 153 and Commissioning beginning on DOY 154 in week 22

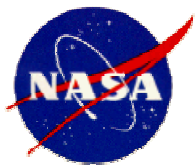
Mars Odyssey Mapping ending on DOY 150 in week 22, THEMIS ending on DOY 125 in week 18, and Relay

Mars Express Bi-Static Radar in weeks 18, 20 and 22 and Orbital Science

Mars Reconnaissance Orbiter Prime Science, Ka Ops Demo and X/Ka Delta DOR in week 21

New Horizons Beacon





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22)

EVENTS

Phoenix Approach, Delta DOR, TCM on DOY 131, 138, and 141, and EDL on DOY 146 in week 21

SOHO HSO continuous ending in week 18 and Keyhole event beginning in week 19 and maneuver in week 22

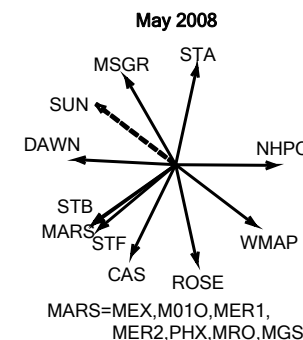
STEREO Ahead Prime Science

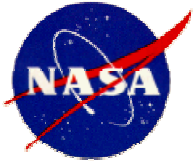
STEREO Behind Prime Science

Venus Express Solar Corona beginning in week 19

Voyager 1 ASCAL on DOY 120, MAGROL on DOY 123 in week 18

Wilkinson Map Maneuver in week 20





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)



RECOMMENDATIONS

DSS approve proposed DSS-15 downtime for Life Extension ending in week 19. (2)

CAS Tour move support from DSS-15/24/25 to DSS-24/25/26 in week 19. (2)

CLU2 move all SSO supports from DSS-27/24/15/14 to DSS-27/24/14 in weeks 18 – 19.

Move all MSO supports from DSS-27/24/15/14 to DSS-27/24/14 in week 18. (1,2)

DSN ANTICAL S/X move DSS-15 support from week 15 to week 20. (2)

DSS delete one 8-hour Maintenance period at DSS-14 and one 6-hour period at DSS-63 in week 18. (1)

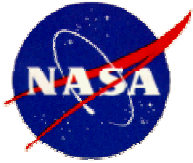
EGS Global VLBI move support from week 21 to week 23. (1)

GSSR GODR delete support at DSS-14/15 in week 18 and 20. (2)

GSSR Mercury, move support from week 21 to week 23. (1)

M01O Relay support, increase pass duration from 4 hours to 8 hours and MSPA seven 8-hour passes with MGS Map/Beta Sup at DSS-43,65 in week 18. M01O Map MSPA with MRO Pri Sci delete four 10-hour passes at the 70M subnet and move remaining 3 passes to 34BWG2 in week 21. (1,2)

MEX Orb Sci/Occ, MSPA with MGS Map move passes from 34H,70M to 34B2 in week 21. (1)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)

RECOMMENDATIONS

MGS Map/Beta Sup support, MSPA seven 8-hour passes with M01O Relay at DSS-43,65 in week 18. MGS Map MSPA with MEX Orb Sci/Occ move passes from 34H,70M to 34B2 in week 21. (1,2)

MRO Pri Sci MSPA with M01O Map delete four 10-hour passes at the 70M subnet and move remaining 3 passes to 34BWG2 in week 21. (1)

VGR2 reduce 7 of 7 passes at DSS-43,45,34 from 8 to 6 hours in week 21. (1)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – May (Weeks 18 - 22) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe contention exists for CAS, DSN Maintenance, GSSR Mercury, MEX, PHX and STF in week 21 due to oversubscription of the subnet, specifically in the MARS view period due to requirements supporting PHX TCM, Approach and EDL activities. (Including relay support)
2. (34BWG1) The projected unsupportable time is moderate for DSS Maintenance and Severe for MGS in week 18 due to oversubscription of the subnet, specifically in the MARS view period.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44)

EVENTS

DSS-43 proposed downtime (Life Extension)

Cassini Tour

Kepler Science Ops

Mars Odyssey Relay

Mars Express Bi-Static Radar in weeks 40, 42, and 44 and Orbital Science

Mars Reconnaissance Orbiter Prime Science, Ka Ops Demo and X/Ka Delta DOR in week 41

MESSENGER Mercury Flyby 2 in weeks 41 - 42

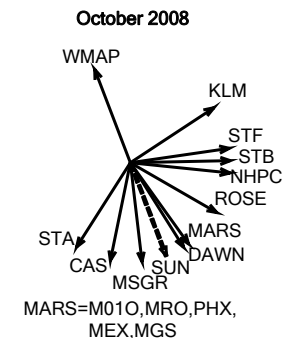
New Horizons Beacon, Checkout, Delta DOR in week 40 and Maneuver in week 41

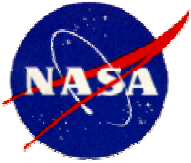
STEREO Ahead Prime Science

STEREO Behind Prime Science

Voyager 1 DTR Array PB on DOY 296 – 297 at DSS-15/14 in week 43, ASCAL on DOY 302 and MAGROL on DOY 305 in week 44

WIND TCM in week 40





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-43 Life Extension downtime. DSS-14 delete 1 of 2 routine 8-hour maintenance, move the Bearing maintenance from week 41 to week 43 and from week 44 to week 45. DSS-63 delete all routine 6-hour maintenance. (1)

CHDR move 7 of 21 passes from 34BWG1 to DSS-27,46,66 in weeks 40 - 43. (3)

CLU2 move all SSO and MSO supports from DSS-46/34/45/43 to DSS-46/34/45. (1)

M01O Relay move passes from 70M to DSS-14,63. Change 3 of 7 standalone passes to MSPA with MRO at DSS-14,63 in weeks 40 and 42- 44. Move 3 of 4 passes from DSS-14,63 to 34HEF and MSPA with MRO in week 41. (1)

MEX move Bi Static Radar passes from the 70M to DSS-14,63 in weeks 40, 42, and 44. (1)

MGS Map/Beta Sup move 4 of 7 passes from DSS-26,34,54 to 26,45,54 and delete remaining 3 passes. (3,4)

MRO Prime Science move passes from 70M to DSS-14,63. Change 3 of 7 standalone passes to MSPA with M01O Relay at DSS-14,63 in weeks 40 and 42- 44. Move 3 of 4 passes from DSS-14,63 to 34HEF and MSPA with M01O Relay in week 41. Move 3 MRO PSCI MSPA with M01O RLY from 70M to 34HEF in week 41. (1)

MSGR Mercury Flyby 2 move passes from 70M to DSS-14,63,45 in week 41 and to DSS-14,63 in week 42. (1)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44) (continued)

RECOMMENDATIONS

NHPC move the 3 Maneuver passes in week 41 and all Checkout passes from 70M to DSS-14,63. (1)

STB move passes from DSS-26,34,55 to DSS-26,45,55. (3)

STF move passes from 70M to DSS-14,63. (1)

VGR1 reduce all routine passes from 8 hours to 4 hours. Delete 1 of 7 passes in week 43, delete 2 of 7 passes in week 44, delete 2-hour U/L passes in weeks 43-44 and add U/L to DTR PB and MAGROL passes in weeks 43 and 44. (1,4)

VGR2 reduce pass duration from 8 hours to 4 hours and move passes from DSS-34,45,43 to DSS-45,34. (1,2,3)

WMAP move passes from DSS-14,43 to DSS-14,34/45. (1)



RESOURCE ALLOCATION REVIEW

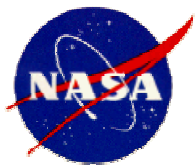
Events, Recommendations and Analyses

2008 – October (Weeks 40 - 44) (continued)

ANALYSES

1. (70M) The projected unsupportable time is severe to extreme for DSS Bearing and Routine Maintenance in all weeks; moderate to extreme in week 41 for Mars missions, MSGR Mercury Flyby, NHPC Checkout and maneuver and Spitzer. Moderate to severe for VGR1. The projected unsupportable time is due to 80 to 100 percent view period overlap among the projects and with DSS Maintenance (daylight). This is further compounded in the Southern Hemisphere by the proposed DSS-43 downtime.
2. (34HEF) The projected unsupportable time is moderate to severe for DSS Maintenance in all weeks. The unsupportable time The projected unsupportable time is due to view period overlap with DSS Maintenance (daylight), Mars missions, MSGR, NHPC, and VGR1 & 2; compounded by proposed DSS-43 downtime.
3. (34BWG1) The projected unsupportable time is moderate to extreme for DSS Maintenance and MRO due to 80 – 100 percent view period overlap with other Mars missions, MSGR, NHPC, VGR1 & 2 and WIND, compounded in the Southern Hemisphere by the proposed DSS-43 downtime.
4. (34BWG2) The projected unsupportable time is severe to extreme for DSS Maintenance and MGS due to 80 – 100 percent view period overlap with Kepler, MRO, MSGR, STA and VGR1.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – November (Weeks 45 - 48)

EVENTS

DSS-43 proposed downtime (Life Extension)

Cassini Tour

Chandra ACA D/C Measurement in week 45 and Leonid support in week 48

EGS Global VLBI 24 hour quarterly epoch at DSS-14/63 in week 45 and EVN J-M5 18 hour event at DSS-14/63 in week 48

Goldstone Solar System Radar Asteroid 4179 Toutatis on DOY 316 - 326 in weeks 46 - 47

Mars Odyssey Relay

Mars Express Bi-Static Radar in weeks 46 and 48 and Orbital Science

Mars Reconnaissance Orbiter Prime Science, Ka Ops Demo in weeks 45 and 46, Solar Conjunction beginning in week 47 and X/Ka Delta DOR in week 45

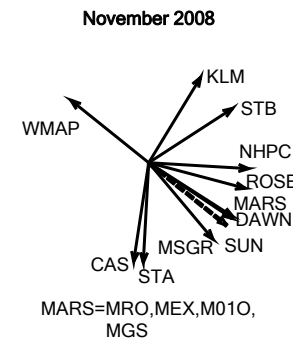
New Horizons Beacon and Checkout ending in week 45

SOHO Keyhole Event beginning in week 45

STEREO Ahead Prime Science

STEREO Behind Prime Science

Venus Express Bi Static Radar 8 in week 46





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2008 – November (Weeks 45 - 48) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-43 Life Extension downtime. DSS-14 delete 1 of 2 routine 8-hour maintenance and add Bearing Maintenance in week 45. DSS-63 delete routine 6-hour maintenance. (1)

CLU2 move all SSO and MSO supports from DSS-46/34/45/43 to DSS-46/34/45. (1)

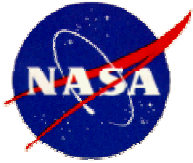
CHDR move 7 of 21 supports from 34BWG2 to DSS-27,46,66. (1)

M01O Relay delete the 34HEF 7 passes in weeks 45 and 46. Move 7 to 14 passes from 70M to DSS-14,63. Move 3 of 7 passes in weeks 45 and 46 and 7 of 14 passes in week 47 and 48 from DSS-14,63 to MSPA with MGS 3 passes in weeks 45, 46 and 4 passes in week 47 at DSS- DSS-24,45,54. MSPA the remaining 3 passes in weeks 45 and 46 and 4 passes in week 47 with M01O Prime Science at DSS-14,63. (1,2,3,4)

MEX Orbital Science move 4 of 7 passes from DSS-15,26 to DSS-15,24 and move remaining 3 passes to DSS-15,25 in weeks 45 and 46. Move 4 of 7 passes from DSS-15,25 to DSS-15,24 in weeks 46 and 47. MEX Bi Static move passes from 70M to DSS-14,63 in weeks 46 and 48. (1,4)

MGS Map and Beta Sup move the 7 passes from 34BWG1 to DSS-24,45,54 and MSPA with M01O Relay 3 passes in weeks 45 and 46 and 7 passes in week 47 and 48. (1,3)

MRO Prime Science move 3 passes from 70M to DSS-14,63 and MSPA with M01O Relay in weeks 45 – 47. (1)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2008 – November (Weeks 45 - 48) (continued)

RECOMMENDATIONS

NHPC Checkout move passes from 70M to DSS-14,63 in week 45. (1)

SOHO Keyhole change the array antenna selection for DSS-43/46 and DSS-43/27 to DSS-45/46 and DSS-45/27 in weeks 45 – 48. Move 6 of 11 keyhole passes from DSS-14/27,45/46,63/66 to DSS-15/27,45/46,65/66 in week 46. (1)

STA move passes from DSS-26,34,55 to DSS-26,45,55 in weeks 47 and 48. (3)

VEX Radar 8 move support from 70M to DSS-14,63 in week 46. (1)

VGR1 reduce all routine passes from 8 hours to 4 hours. (4)

VGR2 reduce pass duration from 8 hours to 4 hours and move passes from DSS-34,45,43 to DSS-45,34. (1,2,3)

WMAP move passes from DSS-14,43 to DSS-14,34/45. (1)

WIND Change 1 to 2 passes per week to D/L only and move from 34BWG1 to DSS-45. (3)



RESOURCE ALLOCATION REVIEW

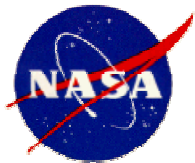
Events, Recommendations and Analyses

2008 – November (Weeks 45 - 48) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance, GSSR Asteroid, M01O Relay, MEX Bi Static and SOHO Keyhole maneuver. The projected unsupportable time is due to 80 – 100 percent pf projects view period overlapping with DSS Maintenance (daylight). This is further compounded by the proposed DSS-43 downtime.
2. (34HEF) The projected unsupportable time is moderate to severe for DSS Maintenance, M01o Relay, MEX Orbital Science, MGS, MSGR, NHPC, SOHO Keyhole event and VGR1 and VGR2. The projected unsupportable time is due to 80 – 100 percent pf projects view period overlapping with DSS Maintenance (daylight). This is further compounded by the proposed DSS-43 downtime.
3. (34BWG1) The projected unsupportable time is moderate to extreme for DSS Maintenance, Mars missions, MSGR, NHPC, SOHO, VGR1 & 2 and WIND. The projected unsupportable time is due to 80 – 100 percent pf projects view period overlapping with DSS Maintenance (daylight). This is further compounded by the proposed DSS-43 downtime.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2008 – December (Weeks 49 - 52)

EVENTS

DSS-43 proposed downtime (Life Extension)

Cassini Tour

Chandra Earth Eclipse in weeks 50 - 52

Kepler Science Ops and Quarterly Roll Maneuver on DOY 351 - 352 in week 52

Mars Odyssey Relay

Mars Express Bi-Static Radar in weeks 50 and 52 and Orbital Science

Mars Reconnaissance Orbiter Prime Science, Solar Conjunction ending in week 52, X/Ka Delta DOR in week 52 and Relay Phase beginning in week 52

MESSENGER Deep Space Maneuver-4 on DOY 341 in week 49

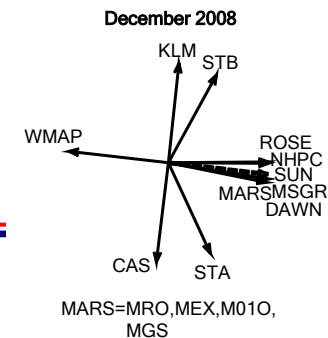
New Horizons Beacon and Maneuver in weeks 51 and 52

STEREO Ahead Prime Science

STEREO Behind Prime Science

Venus Express Bi Static Radar 9 in week 52

Wilkinson Microwave Anisotropy Probe Maneuver in week 52





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2008 – December (Weeks 49 - 52) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-43 Life Extension downtime. DSS-14 delete 1 of 2 routine 8-hour maintenance and move Bearing Maintenance from week 49 to week 50.
DSS-63 delete routine 6-hour maintenance. (1)

CLU2 move all SSO and MSO supports from DSS-46/34/45/43 to DSS-46/34/45. (1)

CHDR move 7 of 21 supports from 34BWG2 to DSS-27,46,66. (1)

M01O Move passes from 70M to DSS-14,63. (1)

MEX Orbital Science move 4 of 7 passes from DSS-15,25 to DSS-15,24 and move Bi-Static passes from 70M to DSS-14,63 in weeks 50 and 52. (4)

MGS Map and Beta Sup reduce pass duration from 14 hours to 10 hours and move from DSS-26,34,54 to 34HEF. (2,4)

MSGR Cruise move 4 of 7 passes and 2 of 3 passes from DSS-26,34,54 to DSS-25,45,55.
Move DSM-4 support from 70M to dSS-14,63 in week 49. (1,3,4)

NHPC maneuver move support from 70M to DSS-14,63 in weeks 51 and 52. (1)

VEX Radar 9 move support from 70M to DSS-14,63 in week 52. (1)

VGR1 reduce all routine passes from 8 hours to 4 hours. (4)



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2008 – December (Weeks 49 - 52) (continued)

RECOMMENDATIONS

VGR2 reduce pass duration from 8 hours to 4 hours and move passes from DSS-34,45,43 to DSS-45,34. (1,2,3)

WMAP move passes from DSS-14,43 to DSS-14,34/45 and move maneuver support from DSS-14,43 to DSS-14 in week 52. (1)

WIND change 1 to 2 passes per week to D/L only and move from 34BWG1 to DSS-45. (3)



RESOURCE ALLOCATION REVIEW

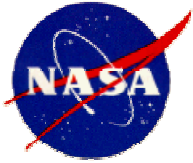
Events, Recommendations and Analyses

2008 – December (Weeks 49 - 52) (continued)

ANALYSES

1. (70M) The projected unsupportable time is moderate to severe for DSS Bearing and Routine Maintenance, M01O Relay, MEX Bi Static, MSGR DSM-4 and VEX. The projected unsupportable time is due to 80 – 100 percent of projects view period overlapping with DSS Maintenance (daylight). This is further compounded by the proposed DSS-43 downtime.
2. (34HEF) The projected unsupportable time is moderate to severe for DSS Maintenance. The projected unsupportable time is due to 80 – 100 percent of projects view period overlapping with DSS Maintenance (daylight). This is further compounded by the proposed DSS-43 downtime.
3. (34BWG1) The projected unsupportable time is moderate to severe for DSS Maintenance, Mars missions, MSGR, NHPC, STA, VGR1 & 2 and WIND. The projected unsupportable time is due to 80 – 100 percent of projects view period overlapping with DSS Maintenance (daylight). This is further compounded by the proposed DSS-43 downtime.

Contention levels on the 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.

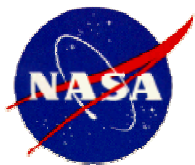


RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2009 Events, Analysis and Recommendations

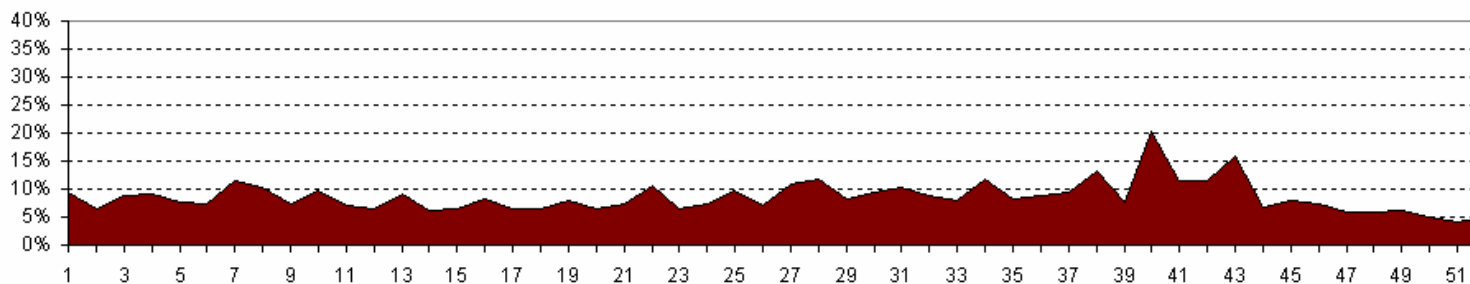


RESOURCE ALLOCATION REVIEW

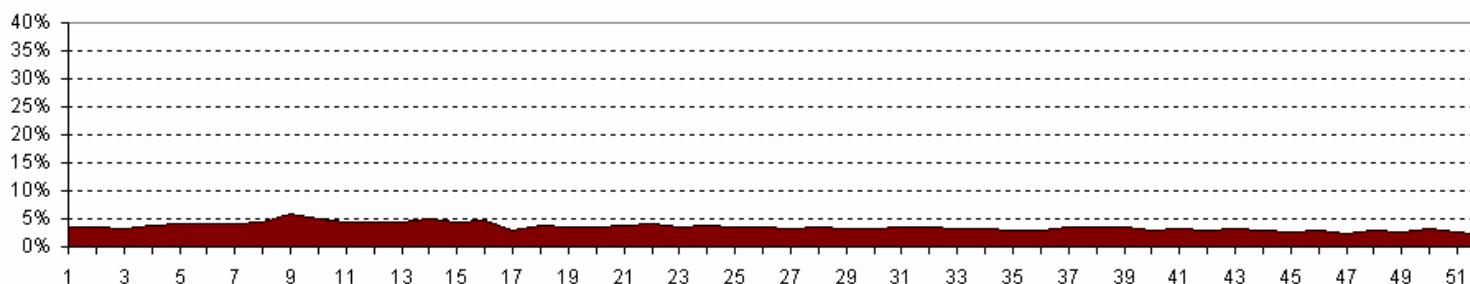
Events, Recommendations and Analyses

2009 Weekly Average User Unsupportable Time

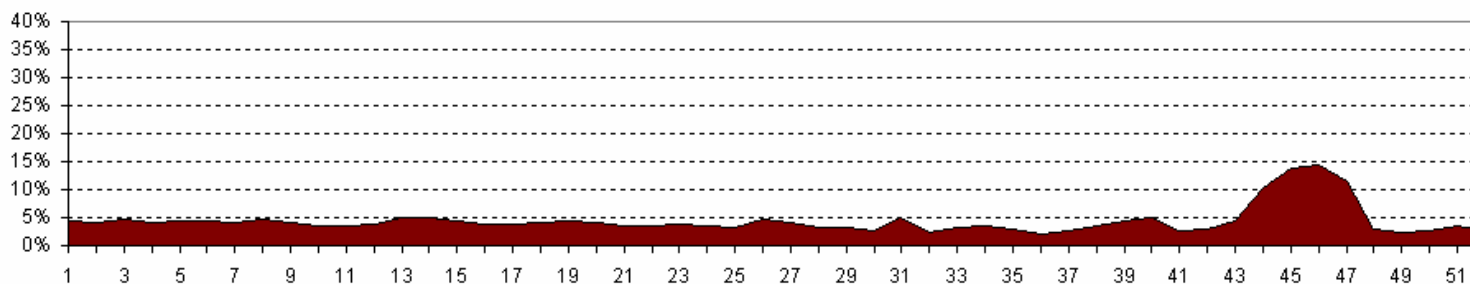
70M

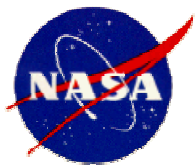


34HEF



34BWG1



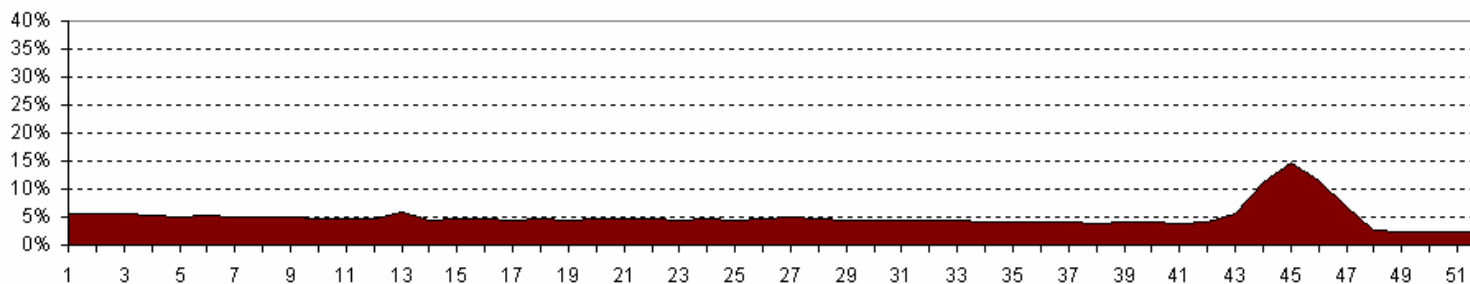


RESOURCE ALLOCATION REVIEW

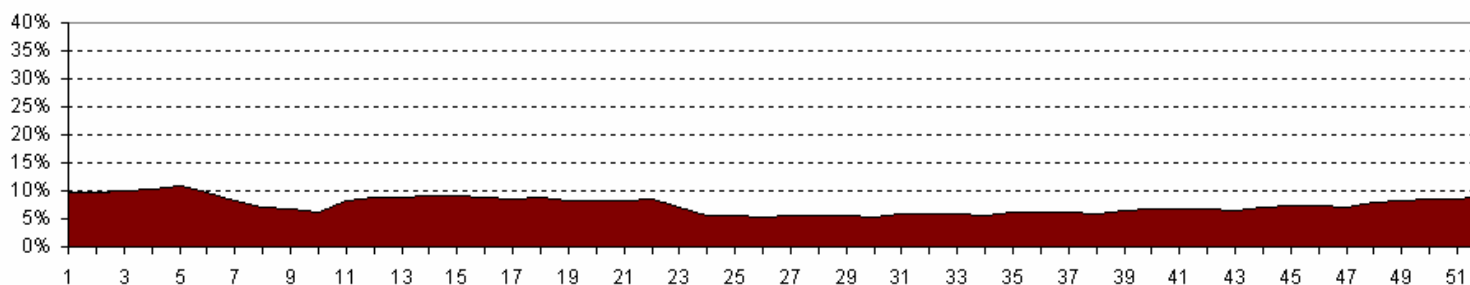
Events, Recommendations and Analyses

2009 Weekly Average User Unsupportable Time

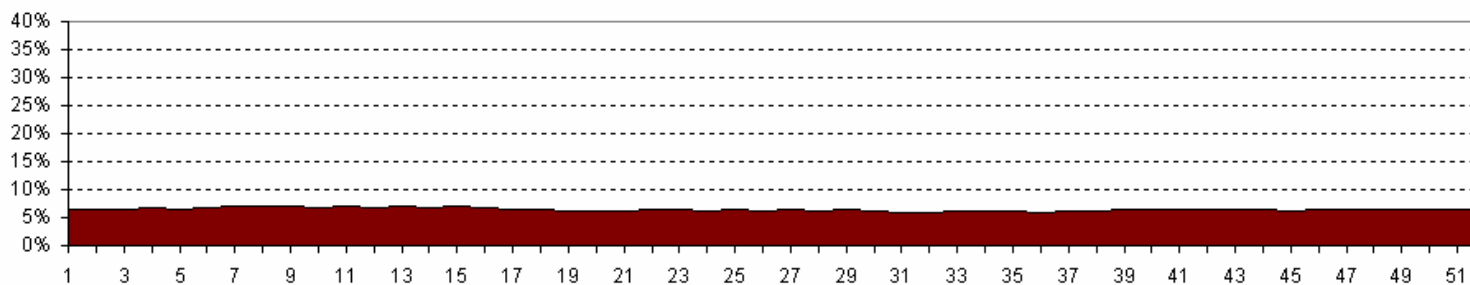
34BWG2

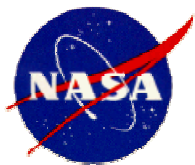


34HSB



26M

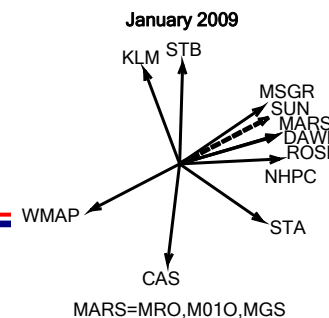




RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – January (Weeks 01 - 05)



EVENTS

DSS-43 proposed downtime (Life Extension)

Cassini Tour

DAWN Mars Gravity Assist beginning on DOY 012 in week 03 ending on DOY 067 in week 10

Goldstone Solar System Radar Asteroid 1998 CS1 in week 03

Kepler Science Ops

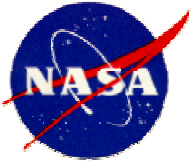
Mars Reconnaissance Orbiter Relay Phase

New Horizons Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science

WIND TCM in week 01



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – January (Weeks 01 - 05) (continued)



RECOMMENDATIONS

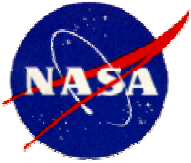
DSS approve proposed DSS-43 downtime for Life Extension.

CAS Tour move all supports from 70m to DSS-14,63.

CLU2 SSO & MSO move all array supports from DSS-46/34/45/43 to DSS-46/34/45.

M01O move all supports from 70M to DSS-14,63.

WMAP move all supports from 70M to DSS-14.



RESOURCE ALLOCATION REVIEW

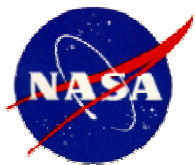
Events, Recommendations and Analyses

2009 – January (Weeks 01 - 05)(continued)

ANALYSES

(70M) DSS-43 antenna is unavailable for use in weeks 01-13. Support requiring DSS-43 has been moved to other resources.

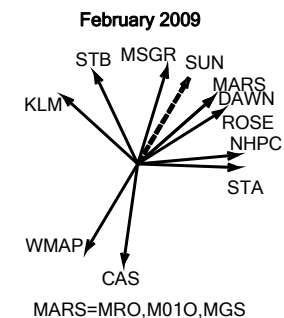
Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – February (Weeks 06 - 09)



EVENTS

DSS-43 proposed downtime (Life Extension)

ATOT A01 Astrometry 24-hour semi-annual event at DSS-43 in week 07

Cassini Tour

DAWN Mars Gravity Assist

EGS EVN Global VLBI 24 hour event at DSS-14/63 in week 008 and EGS EVN J-M5 24 hour event at DSS-14/63 in week 07

Goldstone Solar System Radar Asteroid 1999 AQ10 in weeks 07 and 08

Kepler Science Ops

Mars Reconnaissance Orbiter X/Ka-DDOR in week 08 and Relay Phase

New Horizons Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – February (Weeks 06 - 09) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-43 downtime for Life Extension.

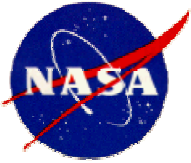
ATOT A01 AST Delete from DSS-43 in week 07.

CAS Tour move all supports from 70M to DSS-14,63.

CLU2 SSO & MSO move all array supports from DSS-46/34/45/43 to DSS-46/34/45.

M01O move all supports from 70M to DSS-14,63.

WMAP move all supports from 70M to DSS-14.



RESOURCE ALLOCATION REVIEW

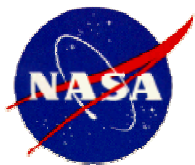
Events, Recommendations and Analyses

2009 – February (Weeks 06 - 09) (continued)

ANALYSES

(70M) DSS-43 antenna is unavailable for use in weeks 01-13. Support requiring DSS-43 has been moved to other resources.

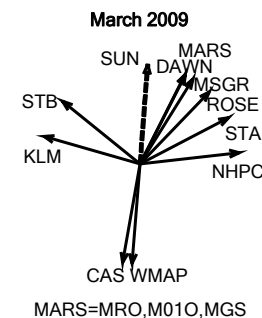
Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – March (Weeks 10 - 13)



EVENTS

DSS-43 proposed downtime (Life Extension) ending in week 13

Cassini Tour

Chandra ACA Dark Current Measurement in week 10

DAWN Mars Gravity Assist ending ion DOY 067 in week 10

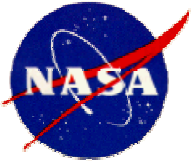
Kepler Science Ops and Quarterly Roll Maneuver on DOY 083 - 084 in week 13

Mars Reconnaissance Orbiter X/Ka-DDOR in week 16 and Relay Phase

New Horizons Cruise Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2009 – March (Weeks 10 - 13) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-43 downtime for Life Extension.

CAS Tour move all supports from 70M to DSS-14,63.

CLU2 SSO & MSO move all array supports from DSS-46/34/45/43 to DSS-46/34/45.

M01O move all supports from 70M to DSS-14,63.

WMAP move all supports from 70M to DSS-14.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – March (Weeks 10 - 13) (continued)



ANALYSES

(70M) DSS-43 antenna is unavailable for use in weeks 01-13. Support requiring DSS-43 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – April (Weeks 14 - 18)

EVENTS

DSS-63 proposed downtime (Life Extension) beginning in week 14

ATOT A01 Imagery 24-hour semi-annual event at DSS-43 in week 17

Cassini Tour

Goldstone Solar System Radar Mercury Radar in weeks 17 and 18

Kepler Science Ops

Mars Reconnaissance Orbiter Relay Phase

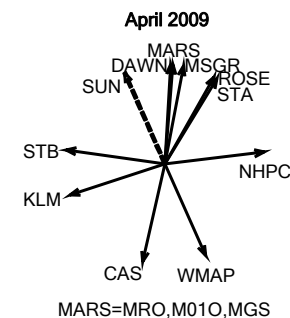
New Horizons Beacon

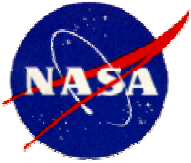
STEREO Ahead Prime Science

STEREO Behind Prime Science

WIND TCM in week 01

Wilkinson Microwave Anisotropy Probe Maneuver in week 16





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – April (Weeks 14 - 18) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-63 downtime for Life Extension.

CAS Tour change support from 70M to DSS-14 and DSS-14/25,63/65 to DSS-14/25.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/54/65.

M01O move support from 70M to DSS-14,43.



RESOURCE ALLOCATION REVIEW

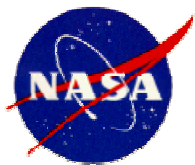
Events, Recommendations and Analyses

2009 – April (Weeks 14 - 18) (continued)

ANALYSES

(70M) DSS-63 antenna is unavailable for use. Support requiring DSS-63 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – May (Weeks 19 - 22)

EVENTS

DSS-63 proposed downtime (Life Extension)

Cassini Tour

EGS Global VLBI 24 hour quarterly epoch at DSS-14/63 in week 21 and EVN J-M5 24 hour event at DSS-14/63 in week 22

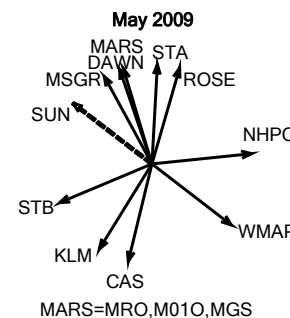
Kepler Science Ops

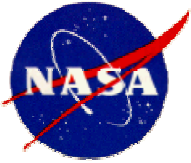
Mars Reconnaissance Orbiter Relay Phase

New Horizons Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – May (Weeks 19 - 22) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-63 downtime for Life Extension.

CAS Tour change support from 70M to DSS-14 and DSS-14/25,63/65 to DSS-14/25.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/54/65.

M01O move support from 70M to DSS-14,43.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

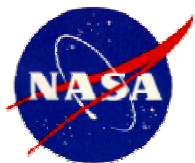
2009 – May (Weeks 19 - 22) (continued)



ANALYSES

(70M) DSS-63 antenna is unavailable for use. Support requiring DSS-63 has been moved to other resources.

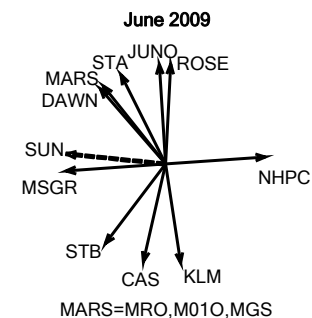
Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – June (Weeks 23 - 26)



EVENTS

DSS-63 proposed downtime (Life Extension)

Cassini Tour

Goldstone Solar System Radar Asteroid 1994 CC in week 24 and Mercury Radar in weeks 25 and 26

Kepler Science Ops

Mars Reconnaissance Orbiter Relay Phase

New Horizons Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – June (Weeks 23 - 26) (continued)

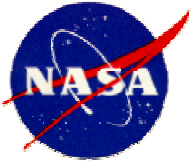
RECOMMENDATIONS

DSS approve proposed DSS-63 downtime for Life Extension.

CAS Tour change support from 70M to DSS-14 and DSS-14/25,63/65 to DSS-14/25.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/54/65.

M01O move support from 70M to DSS-14,43.



RESOURCE ALLOCATION REVIEW

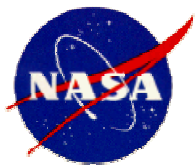
Events, Recommendations and Analyses

2009 – June (Weeks 23 - 26) (continued)

ANALYSES

(70M) DSS-63 antenna is unavailable for use. Support requiring DSS-63 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – July (Weeks 27 - 31)

EVENTS

DSS-63 proposed downtime (Life Extension)

ATOT A01 Imagery 24-hour semi-annual event at DSS-43 in week 28

Cassini Tour

Chandra ACA Dark Current Measurement in week 27

Goldstone Solar System Radar Mercury Radar in weeks 27 and 29

Kepler Science Ops

Mars Odyssey THEMIS augmentation beginning on DOY 180 in week 27

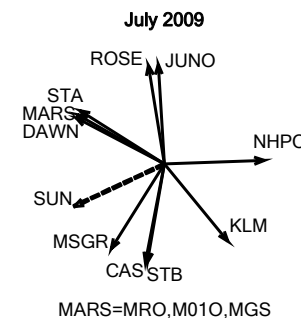
Mars Reconnaissance Orbiter Relay Phase

New Horizons Beacon and Maneuver in weeks 29 and 30

STEREO Ahead Prime Science

STEREO Behind Prime Science

WIND TCM in week 27





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – July (Weeks 27 - 31) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-63 downtime for Life Extension. Maintenance reduce to one 8-hour period at DSS-14 in weeks 27, 28, 30 and 31 and reduce to one 6-hour period in week 29.

CAS Tour change support from 70M to DSS-14 and DSS-14/25,63/65 to DSS-14/25.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/54/65.

M01O THEMIS move seven 10-hour passes from 70M to DSS-14 and move remaining 7 passes to DSS-43 and reduce to 8-hours.

NHPC MNVR move support from 70M to DSS-14,43 in weeks 29 – 30.



RESOURCE ALLOCATION REVIEW

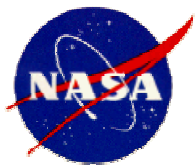
Events, Recommendations and Analyses

2009 – July (Weeks 27 - 31) (continued)

ANALYSES

(70M) DSS-63 antenna is unavailable for use. Support requiring DSS-63 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – August (Weeks 32 - 35)

EVENTS

DSS-63 proposed downtime (Life Extension)

Cassini Tour

Kepler Science Ops

Mars Odyssey THEMIS augmentation

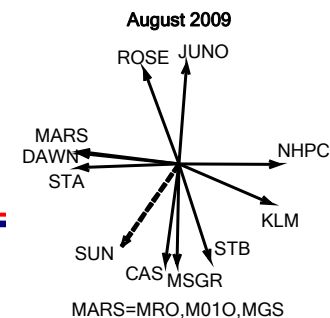
Mars Reconnaissance Orbiter X/Ka-DDOR in week 32 and Relay Phase

New Horizons Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science

Wilkinson Microwave Anisotropy Probe Maneuver in week 32





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – August (Weeks 32 - 35) (continued)

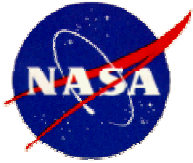
RECOMMENDATIONS

DSS approve proposed DSS-63 downtime for Life Extension. Maintenance reduce to one 8-hour period at DSS-14 in weeks 33 and 34 and to one 6-hour period in weeks 32 and 35.

CAS Tour change support from 70M to DSS-14 and DSS-14/25,63/65 to DSS-14/25.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/54/65.

M01O THEMIS move seven 10-hour passes from 70M to DSS-14 and move remaining 7 passes to DSS-43 and reduce to 8-hours.



RESOURCE ALLOCATION REVIEW

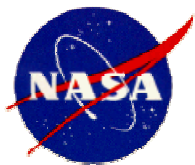
Events, Recommendations and Analyses

2009 – August (Weeks 32 - 35) (continued)

ANALYSES

(70M) DSS-63 antenna is unavailable for use. Support requiring DSS-63 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – September (Weeks 36 - 39)

EVENTS

DSS-63 proposed downtime (Life Extension) ending in week 39

Cassini Tour

Goldstone Solar System Radar Asteroid 2000 CO10 in week 38 and Mercury Radar in weeks 36 and 39

Kepler Science Ops

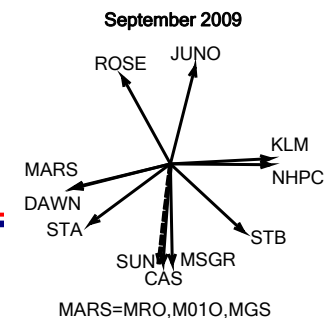
Mars Odyssey THEMIS augmentation

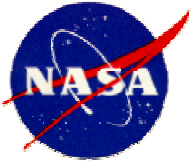
Mars Reconnaissance Orbiter Relay Phase

New Horizons Checkout beginning in week 39, Delta DOR in week 39 and Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2009 – September (Weeks 36 - 39) (continued)

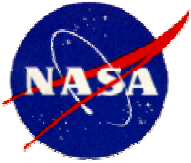
RECOMMENDATIONS

DSS approve proposed DSS-63 downtime for Life Extension. Maintenance reduce to one 8-hour period at DSS-14 in weeks 36, 37 and 39 and to one 6-hour period in weeks 35 and 38.

CAS Tour change support from 70M to DSS-14 and DSS-14/25,63/65 to DSS-14/25.

CLU2 move all SSO supports from DSS-66/54/65/63 to DSS-66/54/65.

M01O THEMIS move seven 10-hour passes from 70M to DSS-14 and move remaining 7 passes to DSS-43 and reduce to 8-hours.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

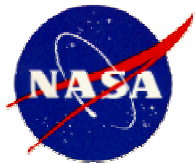


2009 – September (Weeks 36 - 39) (continued)

ANALYSES

(70M) DSS-63 antenna is unavailable for use. Support requiring DSS-63 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – October (Weeks 40 - 44)

EVENTS

DSS-14 proposed downtime (Life Extension) beginning in week 40

ATOT Mission support annual event in week 41

Cassini Tour

EGS EVN J-M5 24 hour event at DSS-14/63 in week 43

Goldstone Solar System Radar Asteroid 1998 FW4 43 in week 40, 1999 AP10 in week 40 and 2001 CV26 in weeks 41 and 42

Kepler Science Ops and Quarterly Roll Maneuver on DOY 176 – 177 in week 40

Mars Odyssey THEMIS augmentation

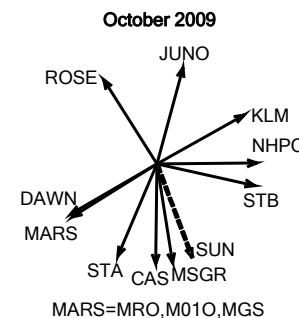
Mars Reconnaissance Orbiter X/Ka-DDOR in week 40 and Relay Phase

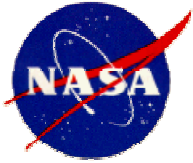
Mars Science Laboratory Launch on DOY 298 in week 43, Early Orbit Phase (continuous support) beginning on DOY 299 in week 43

MESSENGER Mercury Flyby 3 in weeks 40 - 41

New Horizons Beacon, Checkout, Delta DOR in week 40 and Maneuver in week 41

ROSETTA Earth Swingby beginning in week 44





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

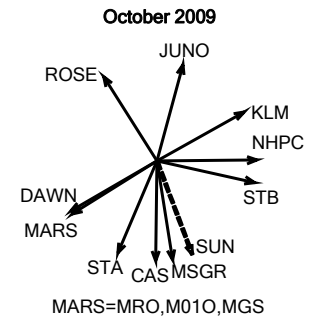
2009 – October (Weeks 40 - 44)

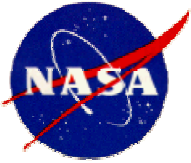
EVENTS

STEREO Ahead Prime Science

STEREO Behind Prime Science

WIND TCM in week 40





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – October (Weeks 40 - 44) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-14 downtime for Life Extension.

CAS Tour change support from 70M to DSS-63 and DSS-14/25,63/65 to DSS-63/65.

CLU2 move all SSO and MSO supports from DSS-27/24/15/14 to DSS-27/24/15.

EGS EVN J-M5 move support from DSS-14/63 to DSS-63 in week 43.

GSSR delete Asteroid 1998 FW4 in week 40, Asteroid 2001CV26 in weeks 41 - 42 and Asteroid 199AP10 in week 43.

M01O THEMIS move seven 10-hour passes from 70M to DSS-63 and move remaining 7 passes to DSS-43 and reduce to 8-hours.

MRO Relay move 4 of 7 passes from DSS-25,26,34,55 to DSS-25,26,45,55 in weeks 40 – 43 and 7 in week 44.

MSGR Mercury FB3 move support from 70M to DSS-43,63 in weeks 40 - 41.

NHPC Maneuver in week 42 and Checkout, move from 70M to DSS-43,63.

WMAP move support from 70M to DSS-43 in week 40.



RESOURCE ALLOCATION REVIEW

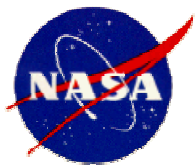
Events, Recommendations and Analyses

2009 – October (Weeks 40 - 44) (continued)

ANALYSES

(70M) DSS-14 antenna is unavailable for use. Support requiring DSS-14 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – November (Weeks 45 - 48)

EVENTS

DSS-14 proposed downtime (Life Extension)

Cassini Tour

Chandra ACA D/C Measurement in week 45 and Leonid support in week 45

EGS Global VLBI 24 hour quarterly epoch at DSS-14/63 in week 45

Kepler Science Ops

Mars Odyssey THEMIS augmentation

Mars Reconnaissance Orbiter X/Ka-DDOR in week 48 and Relay Phase

Mars Science Laboratory Launch Early Orbit Phase (continuous support) ending on DOY 327 in week 47

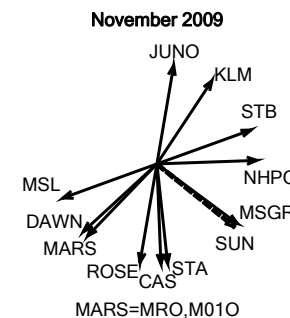
MESSENGER Deep Space Maneuver 5 in weeks 48

New Horizons Checkout in week 45 and Checkout Phase ongoing

Rosetta Earth Swingby ending on DOY 330 in week 48

STEREO Ahead Prime Science

STEREO Behind Prime Science





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – November (Weeks 45 - 48) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-14 downtime for Life Extension.

CAS Tour change support from 70M to DSS-63 and DSS-14/25,63/65 to DSS-63/65.

CLU2 move all SSO and MSO supports from DSS-27/24/15/14 to DSS-27/24/15.

EGS Global VLBI move support from DSS-14/63 to DSS-63 in week 45.

M01O THEMIS move seven 10-hour passes from 70M to DSS-63 and move remaining 7 passes to DSS-43 and reduce to 8-hours.

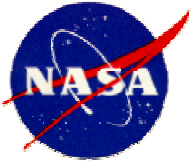
MRO Relay move 7 passes in weeks 45 - 47 and 4 of 7 passes in week 48 from DSS-25,26,34,55 to DSS-25,26,45,55.

MSGR DSM-5 move support from 70M to DSS-43,63 in week 48.

NHPC Checkout, move from 70M to DSS-43,63 in week 45.

STA Pri Sci move support from DSS-26,34,55 to DSS-26,45,55 in week 45.

WMAP move support from 70M to DSS-43 in week 40.



RESOURCE ALLOCATION REVIEW

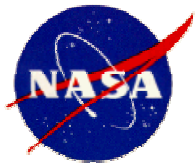
Events, Recommendations and Analyses

2009 – November (Weeks 45 - 48) (continued)

ANALYSES

(70M) DSS-14 antenna is unavailable for use. Support requiring DSS-14 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses

2009 – December (Weeks 49 - 53)

EVENTS

DSS-14 proposed downtime (Life Extension)

Cassini Tour

Goldstone Solar System Radar Mercury Radar in weeks 50 and 51

Kepler Science Ops and Quarterly Roll Maneuver in week 53 on DOY 002 – 003 of 2010

STEREO Ahead Prime Science

STEREO Behind Prime Science

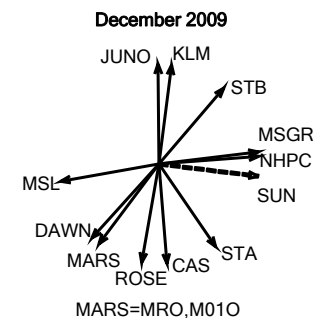
Mars Odyssey THEMIS augmentation

Mars Reconnaissance Orbiter Relay Phase

New Horizons Beacon

STEREO Ahead Prime Science

STEREO Behind Prime Science





RESOURCE ALLOCATION REVIEW

Events, Recommendations and Analyses



2009 – December (Weeks 49 - 53) (continued)

RECOMMENDATIONS

DSS approve proposed DSS-14 downtime for Life Extension.

CAS Tour change support from 70M to DSS-63 and DSS-14/25,63/65 to DSS-63/65.

CLU2 move all SSO and MSO supports from DSS-27/24/15/14 to DSS-27/24/15.

GSSR Mercury Radar delete observations in week 50 and 51.

M01O THEMIS move seven 10-hour passes from 70M to DSS-63 and move remaining 7 passes to DSS-43 and reduce to 8-hours in week 49. Move seven 10-hour passes from 34H,70M to 34H,DSS-63 and move remaining 7 passes to 34H,DSS-43 and reduce to 8-hours in weeks 50 - 53.

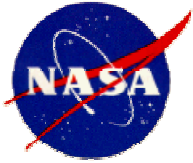
MRO Relay move 4 of 7 passes from DSS-25,26,34,55 to DSS-25,26,45,55.

MSGR DSM-5 move support from 70M to DSS-43,63 in week 48.

NHPC Checkout, move from 70M to DSS-43,63 in week 45.

STA Pri Sci move support from DSS-26,34,55 to DSS-26,45,55 in week 45.

WMAP move support from 70M to DSS-43 in week 40.



RESOURCE ALLOCATION REVIEW

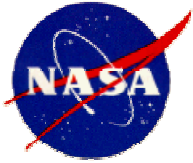
Events, Recommendations and Analyses

2009 – December (Weeks 49 - 53) (continued)

ANALYSES

(70M) DSS-14 antenna is unavailable for use. Support requiring DSS-14 has been moved to other resources.

Contention levels on the 70M, 34HEF, 34BWG1, 34BWG2, 34HSB and 26M subnets are workable and should resolve during final schedule preparation and negotiations.



RESOURCE ALLOCATION REVIEW

Supplemental Materials



Supplemental materials may be found on the RAPSO Homepage at:
<http://rapweb.jpl.nasa.gov>

- ◆ **Ongoing Users Negotiated Requirements**
Individual User Loading Profiles
- ◆ **Resource Allocation Review Information**
Supplemental Yearly Information